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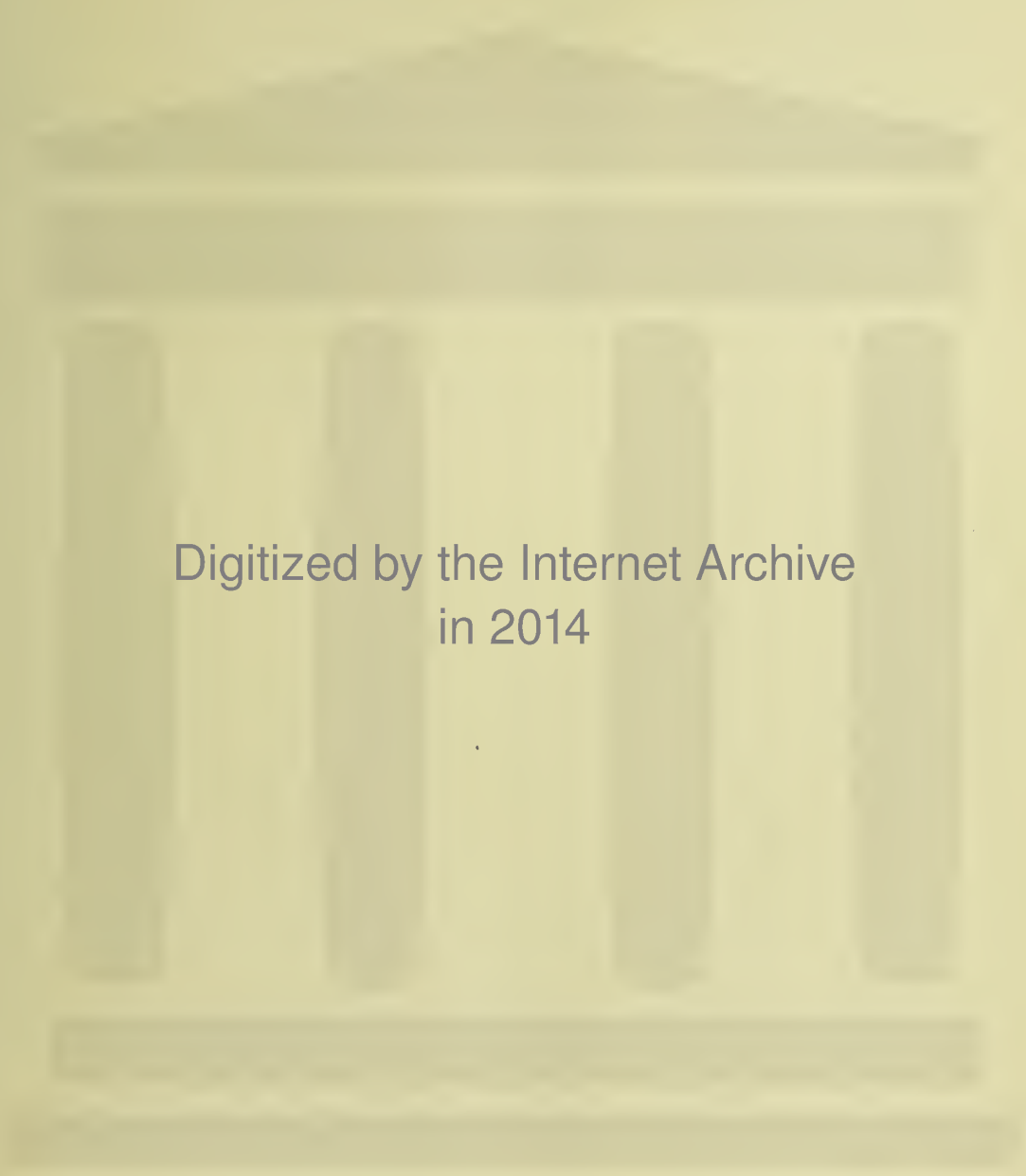
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1864-5.

VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1864.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

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MEMORANDUM.

I venture to hope that the information contained in this paper will be found useful to the miner and the public generally.

I have caused some changes to be made which have had the effect of increasing the value of the Statistics, while, at the same time, the labors of the officers in the country have been lessened.

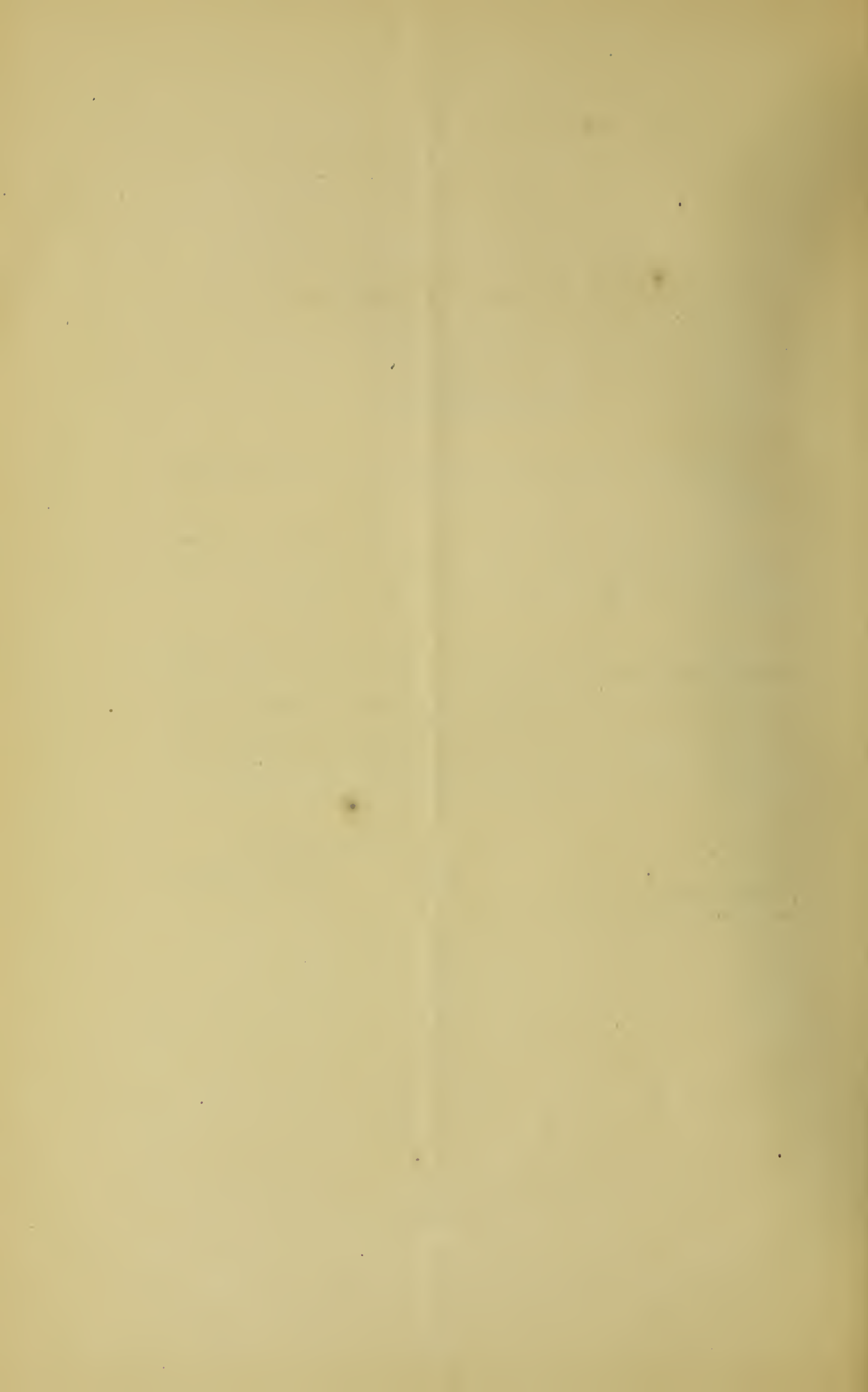
Every care is taken in this office in the compilation of the returns furnished by the Mining Surveyors, and Leaseholders, and as the tables are of practical importance to all persons engaged in mining, it is only reasonable to expect that the Officers of the Department and the Lessees will freely communicate every item of information which is likely to be valuable, as well as furnish the data which are required from them.

J. F. SULLIVAN.

Minister of Mines.

Office of Mines,

13th March, 1865.



MINERAL STATISTICS, 1864.

IMPORTANT changes have been made during the past year in the mode of collecting the "Mineral Statistics," and in the form of publication. An attempt has been made to follow, as far as the circumstances of the colony will permit, the plan adopted by Mr. Robert Hunt, F.R.S., in framing the "Mineral statistics of the United Kingdom;" and though these statistics are neither so full nor so complete as could be wished, I hope that they will not be without use to the miner and the capitalist.

Every effort will be made in future, as formerly, to collect information from those engaged in mining pursuits, and it is certain that year by year the Statistics will increase in value and importance. Much depends on the assistance which may be given by the miners themselves: in most cases it is freely rendered; but the peculiar conditions under which mining operations are performed in this colony present difficulties to the collector of statistics which are not found in other more settled communities.

It is gratifying to me to be able to submit this paper for presentation to Parliament at so early a period of the year, and considering that the information it contains has been derived from so many sources, it would be improper to omit to state that both from the officers of the Mining Department in the country districts, and from the lessees of mining lands, help has been given promptly and cheerfully.

GOLD.

The total number of persons engaged in mining for gold is now given with more accuracy than heretofore. The Mining Registrars are required to collect the returns quarterly instead of monthly; and as their returns are published in detail, every quarter, showing the number of miners working in each locality, it is presumed that no great errors can have been made. To adopt any other more elaborate plan for obtaining the numbers, would involve great cost, and it is probable that the results would not be more satisfactory than under the system now in operation;

for the alluvial miners, in such districts as Beechworth and Maryborough, are for ever moving from place to place, and it is nearly impracticable to follow them and note their numbers.

The number of persons engaged in searching for gold is steadily decreasing. Every allowance being made for unavoidable errors, it is certain that other, perhaps more profitable pursuits, are gradually attracting the miners, and withdrawing them from the gold mines.

The following statement shewing the number of miners employed since the first publication of the "Statistics," and the average earnings per annum is instructive:—

Year.	Number of Miners.	Average Earnings per Man per annum.
		£ s. d.
1859	125,764	72 0 0
1860	108,562	79 9 0
1861	100,463	74 15 11
1862	97,943	67 17 10
1863	92,368	70 9 2
1864	83,397	74 2 6

Adopting the numbers given in the "Statistics" as having been employed in the month of December in each year (not the average numbers employed throughout the year) it is apparent that the decrease is in the number of alluvial miners, and that quartz mining is again attracting attention, and that the number of miners employed in this branch has not in any year departed largely from the mean:—

Year.	Alluvial Miners.	Quartz Miners.
1859	110,398	15,366
1860	90,266	18,296
1861	86,052	14,411
1862	76,676	16,703
1863	77,321	15,673
1864	68,823	16,163

This is explained when we refer to the paper laid before Parliament on the 12th April, 1864, and to the Table No. 29 in these statistics.

The average earnings of the 76,343* alluvial miners, in the year 1863 were £59 7s. 10 $\frac{1}{4}$ d. per man, and of the 16,024* quartz miners £123 3s. 9 $\frac{1}{2}$ d. per man; and in 1864 the 67,982* alluvial miners received each for the year only £61 6s., while the 15,414* quartz miners obtained on the average £130 13s. 9 $\frac{3}{4}$ d. per man.

* Average numbers employed throughout the year, not the numbers employed in the month of December in each year.

The mode in which the quantities of gold severally derived from quartz veins and alluviums are obtained is fully explained in the notes appended to the tables : though the figures are not strictly accurate, it is manifest that they are near the truth, for the returns of parcels of quartz crushed in the several districts during the year 1864, given in Table No. 18 (which does not include *all* the quartz put through the mills) show that 843,515½ tons of quartz yielded 433,981 oz. 16 dwts. of gold.

There are no great or important changes to note in the distribution of the mining population. Several new rich quartz reefs have been discovered in the Beechworth district ; but rich quartz reefs, unlike rich and shallow alluvial workings, do not tend to create “rushes.” They attract more often the capitalist and the experienced miner possessed of capital.

The Chinese miners still follow their old system of mining, and they confine their operations, mostly, to ground which has been abandoned by the Europeans. They are alluvial miners ; and, though very industrious, they are not enterprising. The numbers do not decrease much. In 1859 there were 25,173 Chinese miners, and in 1864 there were 21,597. There are only eight of them engaged in quartz mining.

Perhaps we can best judge of the nature of the change which has taken place in the mode of gold mining by studying the following table, which shows the number of steam engines, and the aggregate horse-power employed respectively in alluvial mining and quartz mining from 1859 to 1864.

Year.	ALLUVIAL MINING.		QUARTZ MINING.	
	Steam Engines employed in winding, pumping, puddling, &c.		Steam Engines employed in winding, crushing, &c.	
	Number.	Aggregate horse-power.	Number.	Aggregate horse-power.
1859	285	3,821	296	4,357½
1860	294	4,137½	417	6,645
1861	331	4,731	453	7,459
1862	347	5,528	461	8,055
1863	357	5,999	435	7,907
1864	441	6,891	447	7,746

The decrease in the number of machines now employed in quartz crushing, as compared with 1862, is due to the fact that some of the machines formerly set down as quartz crushing machines are now placed under the head “Alluvial Mining,” as the stuff (conglomerate or cement) which is sent to the mills, is obtained from the deep leads and alluviums.

In 1859, the total value of all the machinery employed in gold mining was estimated at £1,155,923, while in 1864 it is £1,496,699. Little reliance, however, can be placed on these figures. It is impracticable to give prices which would be applicable to all the districts of the colony—much is left to the discretion of the surveyor—and it happens that the

estimates greatly differ, partly because of the decrease in the value of plant, consequent on a great reduction on the cost of carriage, and partly because of the different values assigned by the surveyors to the several kinds of machinery.

The total area of auriferous ground actually occupied or opened up by the miners was estimated in 1860 at $643\frac{1}{4}$ square miles, and this year the returns show that the area is $892\frac{1}{2}$ square miles.

Table No. 18 will be found useful. The Mining Surveyors have been able to obtain information during the past year respecting the yield of $843,515\frac{1}{2}$ tons of quartz. The average is 10 dwts. $6\frac{1}{7}$ grs. per ton; and putting together the quantities given in the tables from 1859 to 1864 inclusive it appears that 2,409,987·3 tons of quartz have given an average of 12 dwts. 10·123 grs. of gold per ton.

The average for the Beechworth District (which includes the reefs at Wood's Point and Buckland) is 1 oz. 3 dwts. $16\frac{3}{7}$ grs. per ton, and in the Ballarat District it is only 4 dwts. $16\frac{2}{5}$ grs. per ton. The average per ton is not however a measure of the value of the mines. Much depends on the thickness of the reef and its character. A poor stone which is plentiful and easily procured is more likely to give steady profits to the miner, than a rich reef from which a ton of stone can be procured only at great cost.

Table No. 20, shows that 256,778 tons of quartz tailings, cement, &c., have yielded an average of 4 dwts. $11\frac{3}{4}$ grs. of gold per ton.

The prices of crushing quartz and "cement" in the several districts of the colony range from three shillings and ninepence per ton in the Ballarat District to thirty five shillings per ton in the Beechworth District.

The total number of leases of lands granted for gold mining purposes from the commencement of the leasing system to the end of 1864, is 1,082 for 13,819a. 2r. 7p.; and the number actually in force on the 31st December, 1864, was 529, for 5,129a. 0r. 24p. The total area of auriferous ground which has been opened up by the miners is estimated at 570,933 acres, and it appears therefore, that 565,804 acres are open to the holders of Miners' Rights and subject to the Bye-laws of the Mining Boards, and 5,129a. 0r. 24p. are held under leases. Whenever it is proved that the lands are not worked *bonâ fide* the leases are declared forfeited and the lands thrown open. Every complaint is investigated, but great care is taken to prevent injury to lease holders who are complying substantially with the covenants.

Two Orders in Council are in force relating to Water Rights. The one made under the Act 25 Vic., No. 148., applies to licenses authorising persons to take and divert water for gold mining purposes, and the other made under the *Land Act* 1862, to licenses to take water for general purposes. Under the first, thirty three applications have been made up to the 31st December, 1864, and the capital proposed to be

invested is set down at £71,512. There have not been any applications made under the second. The total length of all the water races used for gold mining purposes is 1,747 miles 55 chains, and the total cost is estimated at £188,331; or an average of £107 15s. 2½d. permile. Where long tunnels or large flumes are required the cost is greatly enhanced.

METALS AND MINERALS OTHER THAN GOLD.

The notes appended to the tables contain all the information I have been able to obtain respecting the operations of the holders of leases and licenses.

R. BROUGH SMYTH,

Secretary for Mines.

Office of Mines,

13th March, 1865.

GOLD.

No. 1.

SUMMARY.

NUMBER OF MINERS employed in the various MINING DISTRICTS for each Quarter during the Year 1864.

QUARTER.	BALLARAT.			BEECHWORTH.			SANDHURST.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
First Quarter ending March 31st ...	13,861	2,198	16,059	11,809	3,081	14,890	9,727	3,154	12,881
Second Quarter ending June 30th ...	13,465	2,381	15,846	11,856	3,193	15,049	9,336	3,343	12,679
Third Quarter ending Sept. 30th ...	14,003	2,347	16,350	11,397	3,269	14,666	8,858	3,437	12,295
Fourth Quarter ending Dec. 31st ...	14,980	2,350	17,330	11,748	4,117	15,865	8,824	3,504	12,328

QUARTER.	MARYBOROUGH.			CASTLEMAINE.			ARARAT.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
First Quarter ending March 31st ...	14,324	3,368	17,692	13,692	2,617	16,309	5,030	684	5,714
Second Quarter ending June 30th ...	15,467	3,156	18,623	13,374	2,544	15,918	4,107	577	4,684
Third Quarter ending Sept. 30th ...	14,563	3,020	17,583	13,729	2,529	16,258	4,509	597	5,106
Fourth Quarter ending Dec. 31st ...	14,945	3,046	17,991	14,171	2,486	16,657	4,155	660	4,815

QUARTER.	GRAND TOTALS.		
	Alluvial.	Quartz.	Total.
First Quarter ending March 31st ...	68,443	15,102	83,545*
Second Quarter ending June 30th ...	67,605	15,194	82,799
Third Quarter ending September 30th ...	67,059	15,199	82,258
Fourth Quarter ending December 31st ...	68,823	16,163	84,986

NOTE.—The mean number of miners employed during the Year was 83,397 ; and the total quantity of gold exported 1,545,449 oz. 15 dwts., which at £4 per oz., gives £74 2s. 5·98d. per man per annum. The rate per man per annum for the Year 1863, according to the statistics, was £70 9s. 2·436d. ; for 1862, £67 17s. 10·68d ; and for 1861, £74 15s. 11d.

* Not including 6 persons mining for minerals other than gold.

No. 2.

SUMMARY.

NUMBER OF MINERS employed in the various MINING DISTRICTS during the Quarter ending 31st December, 1864.

MINING DISTRICTS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District ...	10,946	4,034	2,342	8	13,288	4,042	17,330
Beechworth District ...	5,586	6,162	4,117	...	9,703	6,162	15,865
Sandhurst District ...	7,160	1,664	3,504	...	10,664	1,664	12,328
Maryborough District ...	11,537	3,408	3,046	...	14,583	3,408	17,991
Castlemaine District ...	9,572	4,599	2,486	...	12,058	4,599	16,657
Ararat District ...	2,433	1,722	660	...	3,093	1,722	4,815
Totals ...	47,234	21,589	16,155	8	63,389	21,597	84,986

No. 3.

NUMBER OF MINERS employed in the MINING DISTRICT OF BALLARAT during the Quarter ending 31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Number One Division	1,562	25	...	...	1,562	25	1,587
Number Two Division	130	558	680	...	810	558	1,368
Number Three Division	351	408	130	...	481	408	889
Number Four Division	1,920	649	175	8	2,095	657	2,752
Baninyong Division	1,510	300	240	...	1,750	300	2,050
Smythesdale Division	3,059	600	100	...	3,159	600	3,759
Creswick Division	1,200	800	570	...	1,770	800	2,570
Gordon Subdivision*	23	...	35	...	58	...	58
Steiglitz Subdivision	511	223	152	...	663	223	886
Blackwood Subdivision	640	471	230	...	870	471	1,341
Blue Mountain South Subdivision	40	...	30	...	70	...	70
Totals	10,946	4,034	2,342	8	13,288	4,042	17,330

* The Mining Surveyor and Registrar for this subdivision died during the quarter ending 31st December, 1864, and this information was taken from his returns for the previous quarter. .

No. 4.

NUMBER OF MINERS employed in the MINING DISTRICT OF BEECHWORTH during the Quarter ending 31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Subdivision	680	1,026	91	...	771	1,026	1,797
Stanley Subdivision	403	373	33	...	436	373	809
Yackandandah Division	1,173	1,100	50	...	1,223	1,100	2,323
Indigo Division	806	774	54	...	860	774	1,634
Buekland Division	224	1,960	300	...	524	1,960	2,484
Crooked River Subdivision	311	200	457	...	768	200	968
Wood's Point Subdivision	299	6	1,145	...	1,444	6	1,450
Gaffney's Creek Subdivision	430	30	360	...	790	30	820
Jamieson Subdivision	175	40	245	...	420	40	460
Part of Jordan South and part of Omeo } Subdivisions*	452	150	492	...	944	150	1,094
Donnelley's Creek, &c., Subdivision	370	25	860	...	1,230	25	1,255
Omeo Central Subdivision	170	400	20	...	190	400	590
Snowy Creek Subdivision	93	78	10	...	103	78	181
Totals	5,586	6,162	4,117	...	9,703	6,162	15,865

* The Mining Surveyor and Registrar for these subdivisions not having furnished a report for the quarter ending 31st December, 1864, the information was taken from his last returns.

No. 5.

NUMBER OF MINERS employed in the MINING DISTRICT OF SANDHURST during the Quarter ending 31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Kangaroo Flat Subdivision	1,000	750	1,100	...	2,100	750	2,850
Eaglehawk Subdivision	3,040	650	1,456	...	4,496	650	5,146
Raywood Division	2,036	100	210	...	2,246	100	2,346
Kilmore Division	288	...	68	...	356	...	356
Heathcote Division and Waranga South } Subdivision	545	73	477	...	1,022	73	1,095
Waranga North Subdivision	251	91	193	...	444	91	535
Totals	7,160	1,664	3,504	...	10,664	1,664	12,328

No. 6.

NUMBER OF MINERS employed in the MINING DISTRICT OF MARYBOROUGH during the Quarter ending
31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	3,400	1,500	550	...	3,950	1,500	5,450
Amherst Division	2,950	380	380	...	3,330	380	3,710
Avoca Subdivision	1,000	570	4	...	1,004	570	1,574
Dunolly Division	1,892	364	640	...	2,532	364	2,896
Korong Division	1,100	500	1,100	...	2,200	500	2,700
Redbank and St. Arnaud South Sub- division }	680	20	250	...	930	20	950
St. Arnaud North Subdivision	515	74	122	...	637	74	711
Totals	11,537	3,408	3,046	...	14,583	3,408	17,991

No. 7.

NUMBER OF MINERS employed in the MINING DISTRICT OF CASTLEMAINE during the Quarter ending
31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division	1,126	1,486	467	...	1,593	1,486	3,079
Fryer's Creek Subdivision	1,527	1,551	154	...	1,681	1,551	3,232
Taradale Subdivision	288	278	125	...	413	278	691
Hepburn Division	4,746	840	710	...	5,456	840	6,296
Maldon Division	662	354	525	...	1,187	354	1,541
St. Andrew's East Subdivision	455	85	95	...	550	85	635
St. Andrew's West Subdivision	8	...	90	...	98	...	98
Blue Mountain North Subdivision	760	5	320	...	1,080	5	1,085
Totals	9,572	4,599	2,486	...	12,058	4,599	16,657

No. 8.

NUMBER OF MINERS employed in the MINING DISTRICT OF ARARAT during the Quarter ending
31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division	650	750	120	...	770	750	1,520
Pleasant Creek Division	648	260	540	...	1,188	260	1,448
Raglan Division	531	550	...	...	531	550	1,081
Barkly Division	604	162	...	...	604	162	766
Totals	2,433	1,722	660	...	3,093	1,722	4,815

No. 9.
SUMMARY.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the various MINING DISTRICTS during the Quarter ending 31st December, 1864.

MINING DISTRICTS.	ALLUVIAL MINING.												QUARTZ MINING.										Approximate Value of all Mining Plant in the District.	
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp Heads.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp Heads.	Whims and Pulleys.	Water Wheels.	Derricks.	Whips.		Puddling Machines.
	Number.	Aggregate Horse-power.													Number.	Aggregate Horse-power.								
Ballarat District	254	4,440	608	142	3	...	2	4	28	88	4,350	...	52	112	2,243	10	961	22	10	...	9	...	1	504,680
Beechworth District	50	563	109	55	45	...	190	238	28	...	80	...	...	25	328	36	563	...	33	...	...	...	...	183,220
Sandhurst District	31	341	1,209	6	15	...	...	1	...	...	...	...	281	100	1,616	6	959	11	...	...	4	...	...	252,215
Maryborough District	39	664	1,103	167	...	...	39	...	2	...	18	...	14	78	1,212	9	715	64	...	...	25	...	...	192,450
Castlemaine District	38	585	855	53	26	...	132	14	...	...	...	5	50	112	1,906	35	1,125	80	...	...	6	...	...	277,334
Ararat District	29	298	147	22	6	4	366	...	...	...	48	...	12	20	441	9	252	26	...	...	...	8	...	86,800
Totals	441	6,891	4,031	445	95	79	729	257	30	88	4,496	5	409	447	7,746	105	4,575	203	43	6	66	1	...	1,496,699

NORE.—There is a decrease in the total value of the machinery, as compared with 1863, amounting to £6,760.

The machinery used in alluvial mining in the Ballarat district shows an increase as regards steam engines. In 1863 there were 208, of 4,091 horse-power, showing an increase for 1864 of 46 in the number, and of 349 in the horse-power. There is also an increase in horse-puddling machines and water-wheels, and a decrease in whims and pulleys, whips, and sluices and toms. In quartz mining there is a decrease, viz., 8, in the number of steam engines, and of 32 in the horse-power. There is also a slight decrease in the number of whims and pulleys and whips, while there is an increase in the number of crushing machines and water-wheels.

In the Beechworth district the machinery used in alluvial mining shows an increase in steam engines, as compared with 1863, of 2 in the number, and 25 in the horse-power; and an increase in hydraulic hoses, pumps, and sluice-boxes, but a decrease in puddling machines, whims and pulleys, whips, sluices and toms, and water-wheels. In quartz mining the number of steam engines has been increased by 5, and the horse-power by 69, and the number of crushing machines and water-wheels in use is also greater.

The returns of machinery used in alluvial mining in the Sandhurst district exhibit an increase in steam engines, on the previous year, of 27 in the number, and of 290 in the horse-power, and also an increase in the number of whims and pulleys, whips, water-wheels, and sluice-boxes, and a decrease in the number of puddling machines. In quartz mining the number of steam engines is decreased by 6, and the horse-power by 438, and there is a smaller number of whims and pulleys in use, but the number of crushing machines is greater.

In the Maryborough district the machinery used in alluvial mining shows an increase of 16 in the number of steam engines, and of 341 in the horse-power, and a larger number of puddling machines, whims and pulleys, sluices and toms, hydraulic hoses, and sluice-boxes; and a decrease in the number of whips. In quartz mining there is an increase of 1 in the number of steam engines, but a decrease of 260 in the horse-power; a slight increase in the number of crushing machines and whips, but a decrease in the number of whims and pulleys.

The returns for the Castlemaine district, as compared with 1863, give an increase of 1 in the number of steam engines used in alluvial mining, and add 38 to the horse-power; an increase in whims and pulleys, water-wheels, and crushing machines is shown, and a decrease in puddling machines, whips, horse pumps, and sluices and toms. In the machinery used in quartz mining there is an increase, as regards steam engines, of 8 in the number, and of 473 in the horse-power, and a larger number of crushing machines, whims and pulleys, derricks, and whips, are employed.

In the Ararat district the machinery returns for the year 1864, as compared with those for 1863, show a decrease in the steam engines in use in alluvial mining, of 8 in the number, and of 151 in the horse-power; and there is a decrease in the number of puddling machines, whims and pulleys, whips, and crushing machines, and an increase in the number of horse-pumps, sluices and toms, and sluice-boxes. In quartz mining there is an increase of 2 in the number of steam engines, and of 27 in the horse-power, a decrease in the number of crushing machines, and a slight increase in the number of whims and pulleys and whips.

On examination of the returns in detail it is found that the valuation of mining plant in the Raglan division of the Ararat district shows a decrease of £15,600 as compared with 1863. This may be accounted for, partly by the depreciation in value of machinery in this division, arising from a local depression in mining enterprise, and partly from the mining plant in the division having been re-valued with great care by the Mining Registrar who was appointed early in the year.

A comparison of the detailed tables of each district will show in what divisions the more important changes have occurred.

As the facilities of land carriage to the gold fields increase, the depreciation in the value of mining machinery necessarily becomes greater, and the increase in the number of machines in some localities is scarcely sufficient to compensate for this general loss. It may therefore be expected, that although the number of machines used may increase from year to year, yet the approximate value may not increase in the same proportion.

NUMBER OF MACHINES employed in ALLUVIAL AND QUARTZ MINING in the MINING DISTRICT OF BALLARAT during the Quarter ending 31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUB-DIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.	
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp Heads.	Whims and Pulleys.	Water Wheels.	Derricks.		Whips.
	Number.	Aggregate Horse-power.																	
Number One Division	64	835	60	10	2	..	..	..	..	..	..	..	..	24	..	..	..	..	37,140
Number Two Division	1	12	52	2	..	..	..	..	..	..	..	..	..	112	3	..	..	..	34,200
Number Three Division	11	129	68	20	..	..	..	..	..	..	..	..	..	128	..	..	..	..	53,000
Number Four Division	36	845	83	2	..	..	..	..	..	..	..	..	..	122	5	..	..	4	62,790
Buninyong Division	28	480	50	35	..	..	..	..	..	..	..	..	..	72	..	..	..	..	56,000
Smythesdale Division	84	1,690	101	21	..	..	..	..	..	..	..	..	..	40	..	..	..	..	80,000
Creswick Division...	23	335	186	52	..	..	..	..	..	..	..	..	..	174	..	..	..	..	112,200
Gordon Subdivision*	1	8	6	..	1	..	..	..	..	..	..	..	..	43	4	..	..	..	9,500
Steiglitz Subdivision	5	91	..	..	..	..	..	..	..	..	..	..	..	92	3	..	..	5	30,500
Blackwood Subdivision	1	15	2	..	..	..	..	4	..	..	..	..	..	154	7	10	..	..	29,200
Blue Mountain South Subdivision	...	...	...	..	..	..	2	..	..	..	..	..	..	...	..	..	..	..	150
Totals	254	4,440	608	142	3	..	2	4	..	..	..	..	..	961	22	10	..	9	504,680

* The Mining Surveyor and Registrar for this Subdivision died during the quarter ending 31st December, 1864, and this information was taken from his returns for the previous quarter.

No. 11.

NUMBER OF MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT OF BEECHWORTH during the Quarter ending 31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.			
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp Heads.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp Heads.	Whims and Pulleys.	Water Wheels.		Derricks.	Whips.	Puddling Machines.
	Number.	Aggregate Horse-power.													Number.	Aggregate Horse-power.								
Beechworth Subdivision ...	18	177	4	12	5	..	190	31	20	57	2,500	..	..	..	3	40	7	80	..	4	..	..	..	27,000
Stanley Subdivision ..	..	..	23	..	..	..	..	..	..	..	..	..	..	..	1	12	..	8	..	..	..	..	..	6,400
Yackandandah Division ..	1	2	1	3	..	..	..	40	..	..	..	..	..	..	..	..	3	16	..	3	..	..	..	3,000
Indigo Division ..	30	378	80	40	40	..	..	..	..	..	..	..	..	..	3	38	..	32	..	..	..	..	..	45,100
Buckland Division ..	1	6	..	..	..	..	..	97	8	..	..	..	..	..	9	130	9	173	..	9	..	..	..	40,000
Crooked River Subdivision ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2,000
Jamieson Subdivision ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Wood's Point Subdivision ..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	2	32	4	71	..	4	..	..	..	18,800
Gaffney's Creek Subdivision ..	..	..	..	..	..	..	..	..	..	..	600	..	..	..	..	..	10	77	..	10	..	..	1	16,000
Part of Jordan South, and part of } Omeo Subdivisions*	..	..	..	..	..	..	..	70	..	..	850	..	..	..	1	12	2	34	..	2	..	..	..	9,450
Donnelley's Creek Subdivision ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	64	1	72	..	1	..	..	..	14,500
Omeo Central Subdivision ..	..	..	..	..	..	..	..	..	..	25	..	..	..	..	..	..	..	..	..	..	..	..	..	500
Snowy Creek Subdivision ..	..	..	..	..	..	..	..	..	..	6	400	..	..	..	..	..	..	..	..	..	..	..	..	470
Totals ..	50	563	109	55	45	..	190	238	28	88	4,350	..	..	..	25	328	36	563	..	33	..	..	1	183,220

* The Mining Surveyor and Registrar for these Subdivisions not having furnished a report for the quarter ending 31st December, 1864, the information was taken from his last returns.

No. 12.

NUMBER OF MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT OF SANDHURST during the Quarter ending 31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.	
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Stuices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Derricks.	Crushing Machines.	Stamp Heads.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp Heads.	Whims and Pulleys.	Water Wheels.	Derricks.		Whips.
	Number.	Aggregate Horse- power.												Number.	Aggregate Horse- power.							
Kangaroo Flat Subdivision	523	...	...	...	...	...	...	...	...	...	281	40	745	...	439	...	...	...	...	80,000
Eaglehawk Subdivision	...	31	520	...	...	...	...	...	...	...	...	...	...	25	333	...	239	...	...	...	...	100,000
Raywood Division	45	...	...	...	...	...	...	...	...	...	...	3	36	...	38	...	...	...	...	7,850
Kilmore Division	9	...	...	...	...	1	...	...	80	...	...	9	90	...	64	...	...	...	...	7,715
Heathcote Division and Waranga South Subdivision	57	...	...	...	...	...	...	...	...	...	...	16	330	...	101	11	...	...	4	39,650
Waranga North Subdivision	55	6	15	...	...	...	...	...	...	...	...	7	82	...	78	...	...	...	...	17,000
Totals	...	31	1,209	6	15	...	...	1	...	...	80	...	281	100	1,616	6	959	11	...	...	4	252,215

No. 13.

NUMBER OF MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT OF MARYBOROUGH during the Quarter ending 31st December, 1864.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.	
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Stuices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Derricks.	Crushing Machines.	Stamp Heads.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp Heads.	Whims and Pulleys.	Water Wheels.	Derricks.		Whips.
	Number.	Aggregate Horse- Power.												Number.	Aggregate Horse- Power.							
Maryborough Division	9	158	300	102	..	..	..	..	..	..	..	..	..	170	..	..	170	..	..	..	..	47,000
Amherst Division	14	250	308	50	..	..	..	..	2	..	..	..	..	40	9	..	..	40	9	..	..	23,800
Avoca Subdivision	7	146	89	..	..	..	35	..	..	..	..	..	..	6	..	..	28	..	..	..	..	10,500
Dunolly Division	6	77	280	14	..	..	..	..	..	..	..	..	..	29	424	..	212	12	..	..	..	52,000
Korong Division	..	..	95	1	..	..	..	..	..	..	..	..	..	21	300	..	147	25	..	..	25	28,500
Redbank and St. Arnaud South Subdivisions	1	19	16	..	..	..	..	..	..	..	..	..	..	3	49	..	26	4	..	..	..	950
St. Arnaud North Subdivision	2	23	15	..	..	..	4	..	..	..	..	..	14	9	177	7	92	14	..	..	..	29,700
Totals	39	664	1,103	167	..	..	39	..	2	..	18	..	..	78	1,212	9	715	64	..	..	25	192,450

No. 16.

SUMMARY.

NUMBER of DISTINCT QUARTZ REEFS actually proved to be Auriferous, and the TOTAL EXTENT, in Square Miles, of AURIFEROUS ALLUVIAL and QUARTZ GROUND actually worked upon in the various MINING DISTRICTS.

MINING DISTRICTS.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent, in Square Miles, of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District	136	107 $\frac{1}{2}$
Beechworth District	354	243 $\frac{3}{4}$
Sandhurst District	306	116 $\frac{5}{8}$
Maryborough District	531	176 $\frac{7}{8}$
Castlemaine District	334	195 $\frac{7}{8}$
Ararat District	39	51 $\frac{1}{4}$ *
Totals	1,700	892 $\frac{1}{12}$

NOTE.—The number of “distinct” quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored it is found, too, that what were supposed to be separate reefs are not really distinct.

* The total extent of ground reported as worked upon in this district is less than that stated in the statistics for 1863, owing, principally, to corrections having been made in the returns for the Barkly and Raglan Divisions.

No. 17.

TABLE showing the NUMBER of DISTINCT QUARTZ REEFS actually proved to be Auriferous, and the TOTAL EXTENT, in Square Miles, of AURIFEROUS ALLUVIAL and QUARTZ GROUND actually worked upon in the various DIVISIONS and SUBDIVISIONS of each MINING DISTRICT.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent, in Square Miles, of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT	Number One Division	5	1 $\frac{1}{2}$	
	Number Two Division	7	1	
	Number Three Division	6	3 $\frac{1}{4}$	
	Number Four Division	8	5 $\frac{1}{4}$	
	Number Five, or Buninyong Division	12	13 $\frac{1}{2}$	
	Number Six, or Smythesdale Division	9	40 $\frac{1}{2}$	
	Creswick Division	12	7 $\frac{1}{2}$	
	Gordon Subdivision	17	2 $\frac{1}{4}$	
	Steiglitz Subdivision	45	9 $\frac{3}{4}$	
	Blackwood Subdivision	12	19	
	Blue Mountain South Subdivision	3	4	
	Totals	136	107 $\frac{1}{2}$	

TABLE showing the NUMBER of DISTINCT QUARTZ REEFS, &c.—*continued*.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent, in Square Miles, of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BEECHWORTH	Beechworth Subdivision	14	10	{ This embraces the whole of the country over which the leads are scattered
	Stanley Subdivision	12	11 $\frac{1}{2}$	
	Yackandandah Division	21	9	
	Indigo Division	9	50	
	Buckland Division	85	53	
	Crooked River Subdivision	91	20	
	Wood's Point Subdivision	70	16	
	Gaffney's Creek Subdivision	16	15	
	Jamieson Subdivision	3	6 $\frac{1}{4}$	
	Part of Jordan South and part of Omeo Sub-division }	18	4	
	Donnelley's Creek Subdivision	9	41	
	Omeo Central Subdivision	4	7	
	Snowy Creek Subdivision	2	1	
	Totals	354	243 $\frac{3}{4}$	
SANDHURST	Kangaroo Flat Subdivision	57	6 $\frac{1}{2}$	
	Eaglehawk Subdivision	50	4 $\frac{1}{2}$	
	Raywood Division	13	3	
	Kilmore Division	30	15	
	Heatheote Division and Waranga South Sub-division }	91	53	
	Waranga North Subdivision	65	35	
	Totals	306	116 $\frac{1}{2}$	
MARYBOROUGH	Maryborough Division	115	50	
	Amherst Division	45	40	
	Avoca Subdivision	7	20	
	Dunolly Division	156	13 $\frac{7}{8}$	
	Korong Division	140	30	
	Redbank and Saint Arnaud South Subdivision	23	6	
	St. Arnaud North Subdivision	45	17	
	Totals	531	176 $\frac{7}{8}$	
CASTLEMAINE	Castlemaine Division	89	8 $\frac{1}{2}$	{ The total area of auriferous country is estimated at ten miles
	Fryer's Creek Subdivision	25	21 $\frac{1}{4}$	
	Taradale Subdivision	22	1 $\frac{1}{8}$	
	Maldon Division	53	10	
	Hepburn Division	81	80	
	St. Andrew's East Subdivision	56	32 $\frac{1}{2}$	
	St. Andrew's West Subdivision	3	30	
	Blue Mountain North Subdivision	5	12 $\frac{1}{2}$	
	Totals	334	195 $\frac{7}{8}$	
ARARAT	Ararat Division	14	22	Extends over fifteen miles
	Pleasant Creek Division	17	11 $\frac{3}{4}$	
	Barkly Division	6	13	
	Raglan Division	2	4 $\frac{1}{2}$	
	Totals	39	51 $\frac{1}{4}$ *	

* The total extent of ground reported as worked upon in this district is less than that stated in the statistics for 1863, owing, principally, to corrections having been made in the returns for the Barkly and Raglan Divisions.

No. 18.

AVERAGES.

SUMMARY.—AVERAGE YIELD of GOLD from certain parcels of QUARTZ CRUSHED in 1864, in the various MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	Tons Crushed.	Total Produce.		Average Yield per Ton.		
		oz.	dwt.	oz.	dwt.	grs.
Ballarat District	308,323	72,203	17	0	4	16 ² / ₃
Beechworth District	70,158 ¹ / ₂	83,083	13 ¹ / ₂	1	3	16 ³ / ₄
Sandhurst District	142,428	69,107	6	0	9	16 ³ / ₄
Maryborough District	109,127 ¹ / ₄	66,809	1 ¹ / ₂	0	12	5 ³ / ₄
Castlemaine District	167,122 ¹ / ₄	116,852	0	0	13	23 ³ / ₄
Ararat District	46,356 ¹ / ₂	25,925	18	0	11	4 ³ / ₄
Totals	843,515 ¹ / ₂	433,981	16	0	10	6 ¹⁰ / ₁₇

NOTE.—The above Table does not show the total quantity of Quartz crushed in the several localities, but only the yield of certain “crushings” respecting which the Mining Surveyors and Registrars have been able to obtain information. If these returns be compared with those published in the “Statistics” of former years it will be observed that, owing to the increased exertions of the Mining Surveyors and Registrars, much more information has been obtained during 1864 than in any previous year. Owing to the circumstance that many of the machine owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from each district, and in considering the relative importance of each district, as regards quartz mining, the tables relating to machinery should be examined and compared. Since the first publication of the Statistics information has been obtained concerning 2,409,987·3 tons which have been crushed, which yielded an average of 12 dwts. 10·123 grs.

No. 19.

TABLE showing the Average YIELD of GOLD from certain parcels of QUARTZ CRUSHED in 1864, in the various DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, from Returns made by the Mining Surveyors and Mining Registrars.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
BALLARAT.			oz. dwt.	oz. dwt. grs.	
	Number One Division	50	30 0	0 12 0	
	Number Two Division	82,873	14,388 13	0 3 11 ¹ / ₃	
	Number Three Division	32,161	5,522 12	0 3 10 ¹ / ₃	
	Number Four Division	43,744	8,924 3	0 4 1 ¹⁰ / ₁₁	
	Number Five, or Buninyong Division	25,602	4,762 9	0 3 17 ³ / ₁₁	
	Number Six, or Smythesdale Division	11,925 ¹ / ₂	4,272 18	0 7 4	
	Creswick Division	69,834 ¹ / ₂	25,284 19	0 7 5 ⁹ / ₁₁	
	Gordon Subdivision	20,238	2,158 15 ¹ / ₂	0 2 3 ¹ / ₂	
	Steiglitz Subdivision	3,067 ¹ / ₂	3,550 10	1 3 3 ¹ / ₇	(This represents quartz only. Considerable quantities of quartz and mullock, mixed, have been crushed in this subdivision)
	Blackwood Subdivision	18,587 ¹ / ₂	3,236 17 ¹ / ₂	0 3 11 ⁵ / ₉	
	Blue Mountain South Subdivision	240	72 0	0 6 0	
	Totals	308,323	72,203 17	0 4 16 ² / ₃	

TABLE showing the AVERAGE YIELD of GOLD, &c.—*continued*.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
BEECHWORTH.	Beechworth Subdivision	967 $\frac{1}{4}$	379 16	0 7 20 $\frac{1}{2}$	None reported
	Stanley Subdivision	2,339	3,238 0	1 7 16 $\frac{1}{2}$	
	Yackandandah Division	1,540	1,295 15	0 16 29 $\frac{1}{2}$	
	Indigo Division	8,342	1,744 4	0 4 4 $\frac{1}{4}$	
	Buckland Division	32,657 $\frac{1}{2}$	15,669 4 $\frac{1}{2}$	0 9 14 $\frac{1}{2}$	None reported
	Crooked River Subdivision ... ..	...	...	...
	Wood's Point Subdivision	13,062 $\frac{3}{4}$	43,130 2	3 6 0 $\frac{3}{4}$	
	Gaffney's Creek Subdivision	5,041	5,521 16	1 1 21 $\frac{1}{2}$	
	Jamieson Subdivision ... ..	...	...	...	None reported
	Part of Jordan South and part of } Omeo Subdivisions	552	1,963 16	3 11 3 $\frac{1}{2}$	
	Donnelley's Creek Subdivision	5,657	10,141 0	1 15 20 $\frac{1}{2}$	None reported
	Omeo Central Subdivision ... ..	...	...	...
	Snowy Creek Subdivision ... ..	...	...	...	None reported
	Totals	70,158 $\frac{1}{2}$	83,083 13 $\frac{1}{2}$	1 3 16 $\frac{3}{4}$	
SANDHURST.	Kangaroo Flat Subdivision	69,670	28,425 11	0 8 4 $\frac{1}{2}$	
	Eaglehawk Subdivision	48,171	24,254 18	0 10 1 $\frac{1}{2}$	
	Raywood Division	754	960 15	1 5 11 $\frac{1}{2}$	
	Kilmore Division	2,186	1,066 12	0 9 18 $\frac{1}{2}$	
	Heathcote Division and Waranga } South Subdivision	8,801 $\frac{1}{2}$	10,166 2 $\frac{1}{2}$	1 3 2 $\frac{1}{2}$	
	Waranga North Subdivision	12,845 $\frac{1}{2}$	4,233 7 $\frac{1}{2}$	0 6 14 $\frac{1}{2}$	
	Totals	142,428	69,107 6	0 9 16 $\frac{3}{4}$	
MARYBOROUGH.	Maryborough Division	37,280	24,422 19	0 13 2 $\frac{1}{2}$	
	Amherst Division	5,318	2,623 3 $\frac{1}{2}$	0 9 20 $\frac{1}{2}$	
	Avoca Subdivision	304	120 5	0 7 21 $\frac{1}{2}$	
	Dunolly Division	23,268 $\frac{3}{4}$	13,990 13	0 12 0 $\frac{3}{4}$	
	Korong Division	28,342	18,125 19	0 12 19	
	Redbank and St. Arnaud South Sub- } division	1,862	1,675 5	0 17 23 $\frac{1}{2}$	
	St Arnaud North Subdivision	12,752 $\frac{1}{2}$	5,850 17	0 9 4 $\frac{1}{2}$	
	Totals	109,127 $\frac{1}{4}$	66,809 1 $\frac{1}{2}$	0 12 5 $\frac{1}{2}$	
CASTLEMAINE.	Castlemaine Division	41,179 $\frac{1}{4}$	16,496 5	0 8 0 $\frac{1}{4}$	
	Fryer's Creek Subdivision	11,472	3,536 8	0 6 3 $\frac{9}{10}$	
	Taradale Subdivision	3,907	2,845 1	0 4 13 $\frac{1}{2}$	
	Maldon Division	32,433	41,378 1	1 5 12 $\frac{3}{8}$	
	Hepburn Division	73,283	44,067 7	0 12 0 $\frac{3}{8}$	
	St. Andrew's East Subdivision	2,032	4,803 0	2 7 6 $\frac{1}{2}$	
	St. Andrew's West Subdivision	996	2,411 0	2 8 9 $\frac{1}{12}$	
	Blue Mountain North Subdivision	1,820	1,314 18	0 14 10 $\frac{3}{8}$	
	Totals	167,122 $\frac{1}{4}$	116,852 0	0 13 23 $\frac{3}{8}$	
ARARAT.	Ararat Division	4,359	4,740 0	1 1 17 $\frac{10}{11}$	None reported
	Pleasant Creek Division	41,063 $\frac{1}{2}$	21,028 2	0 10 5 $\frac{1}{4}$	
	Barkly Division ... ..	...	...	...
	Raglan Division	934	157 16	0 3 9 $\frac{1}{10}$	
	Totals	46,356 $\frac{1}{2}$	25,925 18	0 11 4 $\frac{1}{4}$	

No. 20.
AVERAGES.

SUMMARY.—AVERAGE YIELD of GOLD from certain Parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., crushed in 1864 in the various MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.				Tons Crushed.	Total Produce.	Average Yield per Ton.
					oz. dwts.	oz. dwts. grs.
Ballarat District	...	...	...	51,566	4,412 9	0 1 17
Beechworth District	...	...	...	1,497	209 2	0 2 19
Sandhurst District	...	...	...	82,659	20,167 5	0 4 21½
Maryborough District	...	...	...	47,076	14,767 19	0 6 6½
Castlemaine District	...	...	...	59,577	13,881 19	0 4 15½
Ararat District	...	...	...	14,403	4,165 14	0 5 18½
Totals	...	...	...	256,778	57,604 8	0 4 11¾

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain Parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., crushed in 1864 in the various DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
BALLARAT.						oz. dwts.	oz. dwts. grs.	
	Number One Division	...	...	...	...	...	...	None reported
	Number Two Division	...	...	...	21,240	787 7	0 0 17¾	
	Number Three Division	...	...	...	12,540	464 6	0 0 17¾	
	Number Four Division	...	...	...	2,460	491 0	0 3 23⅝	
	Number Five, or Buninyong Division				1,245	80 6	0 1 6⅔	
	Number Six, or Smythesdale Division				...	...	...	None reported
	Creswick Division	...	...	...	8,954	1,030 6	0 2 7⅓	
	Gordon Subdivision	...	...	...	...	...	...	None reported
	Steiglitz Subdivision	...	...	...	4,657	1,474 19	0 6 8	
	Blackwood Subdivision	...	...	...	470	84 5	0 3 14	
	Blue Mountain South Subdivision	...	...	...	...	...	...	None reported
Totals					51,566	4,412 9	0 1 17	

TABLE showing the AVERAGE YIELD of GOLD, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
BEECHWORTH.	Beechworth Subdivision	1,467	oz. dwts. 189 2	oz. dwts. grs. 0 2 13 $\frac{6}{7}$	
	Stanley Subdivision ... ..	...	...	...	None reported
	Yackandandah Division ... ..	...	...	...	None reported
	Indigo Division ... ..	...	...	...	None reported
	Buckland Division ... ..	...	...	...	None reported
	Crooked River Subdivision ... ..	...	...	...	None reported
	Jamieson Subdivision ... ..	...	...	...	None reported
	Wood's Point Subdivision	30	20 0	0 13 8	
	Gaffney's Creek Subdivision ... ..	...	...	...	None reported
	Part of Jordan South, and part of } Omeo Subdivisions ... ..	...	...	...	None reported
	Donnelley's Creek Subdivision ... ..	...	...	...	None reported
	Omeo Central Subdivision ... ..	...	...	...	None reported
	Snowy Creek Subdivision ... ..	...	...	...	None reported
	Totals	1,497	209 2	0 2 19	
SANDHURST.	Kangaroo Flat Subdivision	1,040	260 0	0 5 0	
	Eaglehawk Subdivision	75,351	18,762 0	0 4 23 $\frac{1}{2}$	
	Raywood Division	407	88 17	0 4 8 $\frac{1}{2}$	
	Kilmore Division	382	255 4	0 13 9	
	Heathcote Division, and Waranga } South Subdivision	2,624	423 6	0 3 5 $\frac{1}{2}$	
	Waranga North Subdivision	2,855	377 18	0 2 15 $\frac{1}{2}$	
	Totals	82,659	20,167 5	0 4 21 $\frac{1}{2}$	
MARYBOROUGH.	Maryborough Division	7,476	5,726 19	0 15 7 $\frac{2}{3}$	
	Amherst Division	1,088	352 0	0 6 11 $\frac{1}{2}$	
	Avoca Subdivision	15,599	1,604 15	0 2 1 $\frac{1}{2}$	
	Dunolly Division	18,428	5,049 9	0 5 11 $\frac{1}{2}$	
	Korong Division ... ..	...	...	...	None reported
	Redbank and St. Arnaud South Sub- } division ... ..	...	...	...	None reported
	St. Arnaud North Subdivision	4,485	2,034 16	0 9 1 $\frac{3}{4}$	
	Totals	47,076	14,767 19	0 6 6 $\frac{1}{2}$	
CASTLEMAINE.	Castlemaine Division	9,466	873 1	0 1 20 $\frac{1}{4}$	
	Fryer's Creek Subdivision	13,800	5,099 5	0 7 9 $\frac{1}{2}$	
	Taradale Subdivision	2,804	696 8	0 4 23 $\frac{3}{4}$	
	Maldon Division	22,404	2,548 14	0 2 6 $\frac{1}{4}$	
	Hepburn Division	8,644	4,394 0	0 10 4	
	St. Andrew's East Subdivision ... ..	...	...	...	None reported
	St. Andrew's West Subdivision ... ..	...	...	...	None reported
	Blue Mountain North Subdivision	2,459	270 11	0 2 4 $\frac{5}{6}$	
	Totals	59,577	13,881 19	0 4 15 $\frac{5}{6}$	
ARARAT.	Ararat Division	250	41 0	0 3 6 $\frac{3}{4}$	
	Pleasant Creek Division	10,958	2,705 4	0 4 22 $\frac{1}{2}$	
	Barkly Division	3,195	1,419 10	0 8 21 $\frac{1}{4}$	
	Raglan Division ... ..	...	...	...	None reported
	Totals	14,403	4,165 14	0 5 18 $\frac{1}{2}$	

No. 22.

SUMMARY.

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the various MINING DISTRICTS during the Quarter ending 31st December, 1864.

MINING DISTRICTS.	From	To
	£ s. d.	£ s. d.
Ballarat District	0 3 9	1 0 0
Beechworth District	0 10 0	1 15 0
Sandhurst District	0 5 6	1 5 0
Maryborough District	0 5 0	0 15 0
Castlemaine District	0 4 6	1 0 0
Ararat District	0 8 0	1 0 0
Highest and lowest prices ...	0 3 9	1 15 0

No. 23.

TABLE showing the PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the various DIVISIONS and SUBDIVISIONS of each MINING DISTRICT during the Quarter ending 31st December, 1864.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BALLARAT.	Number One Division ... ..	...	...	None crushed
	Number Two Division ... ..	...	...	{ None reported by Mr. Mining Surveyor FitzPatrick
	Number Three Division	0 10 0	0 15 0	
	Number Four Division ... ..	...	...	None crushed
	Number Five, or Buninyong Division ...	0 10 0	0 10 0	For crushing from 10 to 50 tons
	Number Six, or Smythesdale Division ...	0 8 0	1 0 0	
	Creswick Division	0 9 0	0 10 0	{ Under 10 tons 10s., over 10 tons 9s.
	Gordon Subdivision ... ..	...	...	None crushed on hire
	Steiglitz Subdivision	0 3 9*	0 15 0	* This price is per load
	Blackwood Subdivision	0 5 6	0 8 0	
	Blue Mountain South Subdivision	0 12 6	0 12 6	
	Highest and lowest prices ...	0 3 9	1 0 0	

TABLE showing the PRICES charged per Ton for CRUSHING QUARTZ and CEMENT, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BEECHWORTH.	Beechworth Subdivision	0 10 0	0 10 0	
	Stanley Subdivision	0 15 0	0 15 0	For quartz only
	Yackandandah Division	0 15 0	1 0 0	No cement crushed
	Indigo Division	1 0 0	1 0 0	{ For any quantity exceeding 20 tons
	Buckland Division	0 10 0	0 15 0	{ For quartz only, no cement crushed
	Crooked River Subdivision ... ..	...	...	None crushed
	Wood's Point Subdivision	1 10 0	1 10 0	{ For quartz only, no cement crushed
	Gaffney's Creek Subdivision	1 5 0	1 10 0	For quartz only
	Jamieson Subdivision ... ..	...	...	None crushed
	Part of Jordan South, and part of Omeo Sub-division	1 15 0	1 15 0	For quartz only
	Donnelley's Creek Subdivision	1 7 6	1 10 0	For quartz only
	Omeo Central Subdivision ... ..	...	...	None crushed
	Snowy Creek Subdivision ... ..	...	...	None crushed
	Highest and lowest prices ...	0 10 0	1 15 0	
SANDHURST.	Kangaroo Flat Subdivision	0 7 0	0 10 0	No cement crushed
	Eaglehawk Subdivision	0 7 0	0 10 0	Cement is charged for at per load
	Raywood Division	0 10 0	0 10 0	
	Kilmore Division	1 0 0	1 5 0	
	Heathcote Division, and Warranga South Sub-division	0 12 0	0 16 0	No cement crushed
	Waranga North Subdivision	0 5 6	0 10 0	{ Price varies according to quantity. Expense of re-torting quicksilver included for quantities over 10 tons
	Highest and lowest prices ...	0 5 6	1 5 0	
MARYBOROUGH.	Maryborough Division	0 5 0	0 9 0	
	Amherst Division	0 9 0	0 15 0	
	Avoca Subdivision	0 8 0	0 9 0	
	Dunolly Division	0 6 0	0 10 0	{ For quartz under 50 tons the charge is 10s. per ton, and 8s. per ton for larger quantities
	Korong Division	0 6 0	0 6 0	Cement at per load
	Redbank and St. Arnaud South Subdivision	0 12 0	0 15 0	
	St. Arnaud North Subdivision	0 8 0	0 12 0	{ Price varies according to quantity
	Highest and lowest prices ...	0 5 0	0 15 0	
CASTLEMAINE.	Castlemaine Division	5 6 0	0 10 0	
	Fryer's Creek Subdivision	0 6 0	0 11 0	{ Inclusive of carting to the mill
	Taradale Subdivision	0 5 0	0 10 0	
	Maldon Division	0 5 0	1 0 0	20s. per ton includes burning
	Hepburn Division	0 4 6	0 10 0	
	St. Andrew's East Subdivision	0 13 0	1 0 0	No cement or tailings crushed
	St. Andrew's West Subdivision	0 15 0	1 0 0	
	Blue Mountain North Subdivision	0 10 0	0 12 0	
ARARAT.	Highest and lowest prices ...	0 4 6	1 0 0	
	Ararat Division	0 10 0	0 15 0	
	Pleasant Creek Division	0 8 0	0 15 0	
	Barkly Division	0 12 0	1 0 0	No quartz crushed
	Raglan Division ... ..	...	...	None crushed on hire
	Highest and lowest prices ...	0 8 0	1 0 0	

No. 24.

SUMMARY.

PRICE of GOLD per ounce in the various MINING DISTRICTS during the Quarter ending 31st December, 1864.

MINING DISTRICTS.	From	To
	£ s. d.	£ s. d.
Ballarat District	3 15 0	4 1 6
Beechworth District	3 3 0	4 0 0
Sandhurst District	3 14 0	4 0 0
Maryborough District	3 15 6	4 2 0
Castlemaine District	3 3 0	3 19 0
Ararat District	3 16 0	3 19 0
Highest and lowest prices ...	3 3 0	4 2 0

No. 25.

TABLE showing the PRICE of GOLD per ounce in the various DIVISIONS and SUBDIVISIONS of each MINING DISTRICT during the Quarter ending 31st December, 1864.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BALLARAT	Number One Division	4 0 0	4 0 6	
	Number Two Division	4 0 6	4 0 6	
	Number Three Division	4 0 0	4 1 6	
	Number Four Division	4 0 0	4 1 6	
	Number Five, or Buninyong Division ...	3 19 0	4 0 0	
	Number Six, or Smythesdale Division ...	4 0 0	4 0 0	
	Creswick Division	3 18 6	3 19 6	
	Gordon Subdivision	3 15 0	3 15 0	
	Steiglitz Subdivision	3 17 6	3 19 6	
	Blackwood Subdivision	3 16 0	3 17 0	
	Blue Mountain South Subdivision ...	3 17 3	3 17 9	
	Highest and lowest prices ...	3 15 0	4 1 6	

TABLE showing the PRICE of GOLD, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BEECHWORTH.	Beechworth Subdivision	3 19 0	4 0 0	
	Stanley Subdivision	3 19 0	4 0 0	
	Yaekandandah Division	3 18 0	3 18 6	
	Indigo Division	3 19 3	3 19 6	
	Buckland Division	3 17 6	3 17 9	
	Crooked River Subdivision	3 17 6	3 18 0	
	Wood's Point Subdivision	3 3 0	3 18 6	
	Gaffney's Creek Subdivision... ..	3 5 0	4 0 0	
	Jamieson Subdivision	3 15 0	3 15 0	
	Part of Jordan South and part of Omeo Sub- division... ..	...	...	{ Not reported by Mr. Minin Surveyor Duncan
	Donnelley's Creek Subdivision	3 17 6	3 19 0	
	Omeo Central Subdivision	3 8 0	3 17 6	
	Snowy Creek Subdivision	3 5 0	3 12 0	
	Highest and lowest prices ...	3 3 0	4 0 0	
SANDHURST.	Kangaroo Flat Subdivision	3 17 0	3 17 0	
	Eaglehawk Subdivision	3 17 0	3 17 0	
	Raywood Division	3 17 6	3 18 6	
	Kilmore Division	3 15 6	3 16 6	
	Heatheote Division, and Waranga South Sub- division... ..	3 14 0	4 0 0	
	Waranga North Subdivision	3 15 0	3 17 0	
	Highest and lowest prices ...	3 14 0	4 0 0	
MARYBOROUGH.	Maryborough Division	3 18 0	4 1 0	
	Amherst Division	3 18 9	4 2 0	
	Avoca Subdivision	3 15 6	4 0 0	
	Dunolly Division	3 18 0	4 0 0	
	Korong Division	3 17 6	3 18 6	
	Redbank and St. Arnaud South Subdivision ...	3 17 6	3 18 6	
	St. Arnaud North Subdivision	3 16 0	4 1 0	
	Highest and lowest prices ...	3 15 6	4 2 0	
CASTLEMAINE.	Castlemaine Division	3 15 0	3 17 0	
	Fryer's Creek Subdivision	3 15 0	3 18 0	
	Taradale Subdivision	3 17 3	3 17 3	
	Maldon Division	3 17 6	3 19 0	
	Hepburn Division	3 15 0	3 17 3	
	St. Andrew's East Subdivision	3 15 0	3 17 6	
	St. Andrew's West Subdivision	3 3 0	3 17 0	
	Blue Mountain North Subdivision	3 17 3	3 17 9	
	Highest and lowest prices ...	3 3 0	3 19 0	
ARARAT.	Ararat Division	3 16 6	3 16 6	
	Pleasant Creek Division	3 16 0	3 17 0	
	Barkly Division	3 16 6	3 17 9	
	Raglan Division	3 18 0	3 19 0	
	Highest and lowest prices ...	3 16 0	3 19 0	

No. 26.**SUMMARY.**

LENGTH of WATER RACES constructed, and their APPROXIMATE COST in the various MINING DISTRICTS, to 31st December, 1864.

MINING DISTRICTS.	Length of Races.		Approximate Cost.
	miles	chains	£
Ballarat District	344	28	24,291
Beechworth District,...	938	24	145,309
Sandhurst District	25	0	1,274
Maryborough District	92	8	3,147
Castlemaine District	272	55	12,060
Ararat District	75	40	2,250
Totals	1,747	55	188,331

No. 27.

TABLE showing the LENGTH of WATER RACES constructed and their APPROXIMATE COST, in the various DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, to 31st December, 1864.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Length of Races.	Approximate Cost.	Remarks.
					miles chains	£	
BALLARAT.	Number One Division ... ..				...	...	No races constructed
	Number Two Division				101 0	3,030	
	Number Three Division				6 0	156	
	Number Four Division ... ..				...	...	No races constructed
	Number Five, or Buninyong Division				30 40	915	
	Number Six, or Smythesdale Division				0 60	20	
	Creswick Division				106 8	5,700	At Egerton
	Gordon Subdivision				2 0	80	
	Steiglitz Subdivision				33 0	5,000	
	Blackwood Subdivision				64 0	9,190	
	Blue Mountain South Subdivision				1 0	200	
	Totals				344 28	24,291	
BEECHWORTH.	Beechworth Subdivision				101 0	21,300	
	Stanley Subdivision				130 26	52,377*	
	Yackandandah Division				204 0	6,120	
	Indigo Division				12 0	800	
	Buckland Division				150 0	15,000	
	Crooked River Subdivision				16 40	1,300	
	Wood's Point Subdivision				16 0	4,800	
	Gaffney's Creek Subdivision... ..				16 0	3,000	
	Jamieson Subdivision				37 0	4,600	
	Part of Jordan South, and part of Omeo Subdivision				15 0	1,980	
	Donnelley's Creek Subdivision				4 58	2,150	
	Omeo Central Subdivision				162 0	22,525	
	Snowy Creek Subdivision				73 60	9,357	
	Totals				938 24	145,309	

* The average cost of races per mile in this subdivision, according to returns, amounts to rather more than £400. This would appear to be excessive were not the great expense taken into consideration which attends tunnelling and excavating extensive underground workings for the purpose of obtaining water from springs. Of the £52,377, £29,579 were expended in the excavation of 14,383 yards of tunnelling, at a cost of rather more than £2 per yard; 16,270 yards of tail races have been constructed at an outlay of £11,222, or about 13s. 9d. per yard; £10,076 have been appropriated to the formation of 112½ miles of surface races at an average cost of about £89½ per mile; and one race and tunnel were constructed at a cost of £1,500.

TABLE showing the LENGTH OF WATER RACES, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Length of Races.	Approximate Cost.	Remarks.
					miles chains	£	
SANDHURST.	{	Kangaroo Flat Subdivision ... ..			...	...	No races constructed
		Eaglehawk Subdivision ... ..			...	...	No races constructed
		Raywood Division ... ..			...	...	No races constructed
		Kilmore Division			20 0	1,114	
		Heathcote Division, and Waranga South Sub-division			5 0	160	
		Waranga North Subdivision ... ..			...	...	No races constructed
		Totals			25 0	1,274	
MARYBOROUGH.	{	Maryborough Division ... ..			...	...	No races constructed
		Amherst Division			50 0	1,200	
		Avoca Subdivision			28 40	855	
		Dunolly Division ... ..			...	...	No races constructed
		Korong Division ... ..			...	...	No races constructed
		Redbank and St. Arnaud South Subdivision ... ..			...	...	No races constructed
		St. Arnaud North Subdivision			13 48	1,092	
		Totals			92 8	3,147	
CASTLEMAINE.	{	Castlemaine Division ... ..			...	...	No races reported
		Fryer's Creek Subdivision			5 36	872	
		Taradale Subdivision			1 59	148	Cost of Dams £130 more
		Maldon Division			0 60	60	
		Hepburn Division			216 40	8,660	
		St. Andrew's East Subdivision			22 0	220	
		St. Andrew's West Subdivision			2 0	200	
		Blue Mountain North Subdivision			24 60	1,900	
		Totals			272 55	12,060	
ARARAT.	{	Ararat Division			10 0	200	
		Pleasant Creek Division			10 40	400	
		Barkly Division ... ..			...	...	No races constructed
		Raglan Division			55 0	1,650	{ Exclusive of four or five old abandoned races
				Totals			75 40	2,250

No. 28.

RETURN of the TOTAL QUANTITY of GOLD EXPORTED during the Year 1864.

1,545,449 ounces 15 dwts.

NOTE.—In addition to the above 311,767 ozs. 19 dwts. of New Zealand gold have been shipped from this colony during the year.

No. 29.

RETURN showing approximately the GOLD OBTAINED FROM QUARTZ VEINS AND ALLUVIAL WORKINGS during the Year 1864.

From Quartz Veins	...	...	...	503,618 ounces	5 dwts.
From Alluvial Workings...	...	...	...	1,041,831	„ 10 „
Total Gold Exported	...	...	...	1,545,449 ounces	15 dwts.

NOTE.—The above results are only rough approximations. The mining surveyors and registrars, with two exceptions in the Beechworth district, have given approximate returns of the gold obtained severally from quartz veins and alluviums in their divisions; but as the surveyors and registrars could at best furnish no more than estimates, derived from returns made by the banks and gold buyers, and from their own knowledge of the nature of the workings in their districts, the figures must not be considered as correct. When the proportions were obtained for all the districts, they were applied to the total quantity of gold exported, with the above results.

No. 30.

RETURN of the NUMBER OF GOLD MINING LEASES in force on the 31st December, 1864, together with the EXTENT OF GROUND LEASED, and the PROPOSED CAPITAL to be employed in working the said ground.

MINING DISTRICTS.	Number of Leases.	Extent.			Total Capital Proposed.
		acres	roods	perches	
Ballarat District	53	1,413	2	32	£ 246,200
Beechworth District	24	482	2	25	166,000
Sandhurst District	227	1,059	2	34	492,717
Maryborough District	144	1,265	3	10	310,870
Castlemaine District... ..	65	603	1	13	361,856
Ararat District	16	303	3	30	33,600
Totals	529	5,129	0	24	1,611,243

NOTE.—The total number of gold mining leases granted from the commencement is 1082, and the extent 13,819a. 2r. 7p. Several leases expired and many were declared forfeited last year. The above table shows those only actually in force on the 31st December, 1864.

No. 41, d.

No. 31.

The NUMBER of WATER RIGHT LICENSES FOR GOLD MINING PURPOSES issued from the commencement to 31st December, 1864, is as follows :—

Number.	Area of Races.	Length of Races.		Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Capital proposed to be invested.	Annual Rent.
		Miles.	Chains.					
10	acres roods pchs. *236 3 34	51	57	gallons 4,923,000	acres roods p. 25 2 8	gallons 139,349,810	£ 13,575	£ s. d. 127 15 0

* This includes the area of the reservoirs in connection with Water Right License No. 1. The area of the races and reservoirs of License No. 1 is 190 acres.

NOTE.—The above table shows the number of Water Right Licenses issued to 31st December, 1864, but the total number of applications made up to that date is as follows:—

Number.	Area of Races.	Length of Races.		Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Capital proposed to be invested.
		Miles.	Chains.				
33	acres roods perches 705 3 0*	184	40	gallons 49,260,200	acres roods perches 47 2 33	gallons 160,949,150	£ 71,512

* This includes the area of the reservoirs in connection with Water Right License No. 1.

NOTE.—The following "Notice to Applicants for Water Right Licenses" was published in the *Government Gazette* of 2nd December, 1864 :—"The attention of applicants for licenses to take and divert water is directed to the Orders in Council published this day in the *Government Gazette*. The first, made on the 22nd day of December, 1862, (under the Act 25 *Victoria*, No. 148, and now republished without alteration) applies to applications for licenses where the intention is to use the water exclusively for gold mining purposes; and the second, made on the 21st November, 1864, to applications for licenses under the 53rd section of *The Land Act*, 1862."

MINERALS OTHER THAN GOLD.

No. 32.

RETURN relative to the NUMBER OF LEASES in force on the 31st December, 1864, for the purpose of Mining for METALS AND MINERALS OTHER THAN GOLD.

NAMES OF METALS AND MINERALS.	Number of Leases.	Area.			Total Capital proposed to be invested.
		A.	R.	P.	
Antimony	26	464	0	6	£ 43,950
Coal	3	1,598	2	30	60,000
Copper	1	50	0	0	3,000
Kaolin and other clays	2	24	2	18	2,600
Lignite	3	649	3	18	3,000
Silver	25	827	0	21	112,500
Slate	2	199	0	10	20,000
Totals	62	3,813	1	23	245,050

NOTE.—The total number of leases granted to the 31st December, 1864, for the purpose of mining for metals and minerals other than gold, is 85, and the area, 4,924 acres 1 rood 10 perches. Several leases were declared forfeited last year.

The rents charged for leases for the purpose of mining for metals and minerals other than gold are two shillings per acre, per annum, in advance, where one mineral or one metal only is worked ; and if more than one mineral or metal is worked, one shilling per acre, per annum, in addition, and a *royalty* of two per centum, to be estimated on the value of the mineral or metal at the mouth of the mine.

No. 33.

RETURN showing the NUMBER OF LICENSES TO SEARCH FOR METALS OR MINERALS other than Gold issued up to the 31st December, 1864.

NAMES OF METALS OR MINERALS.	Number of Licenses.	Extent of Ground held under License.		
		A.	R.	P.
Carbonate of Magnesia or Magnesite	3	340	0	0
Coal	31	18,679	3	11
Coal and Lignite	2	890	0	0
Copper	6	3,840	0	0
Copper and other ores	1	640	0	0
Flags, Roofing Slate, &c.	2	643	1	0
Kaolin	6	299	2	16
Lignite	1	320	0	0
Quicksilver, or the ores of Quicksilver	1	640	0	0
Roofing Slate	1	640	0	0
Silver and Copper ores	1	640	0	0
Totals	55	27,572	2	27

NOTE.—The following “Notice to Applicants for Licenses to search for Metals or Minerals other than Gold, under the Order in Council of 15th October, 1862,” was published in the *Government Gazette* of 2nd December, 1864 :—

Referring to the third section of the regulations under *The Land Act, 1862*, respecting licenses to search for any metal or mineral except gold, the following scale of fees, payable for licenses issued under the said regulations is published for general information :—

	£	s.	d.
For an area exceeding 320 acres but not exceeding 640 acres	10	0	0
“ 160 “ 320 “	5	0	0
“ 80 “ 160 “	2	10	0
“ 64 “ 80 “	1	5	0
And for any area not exceeding 64 acres	1	0	0

METALLIFEROUS MINERALS, COAL AND LIGNITE, CLAYS, SLATES, AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

The greater part of the silver which has been melted has been obtained from the chlorobromide which occurs at St. Arnaud, with iron pyrites, galena, ores of copper, and native copper, cerusite, anglesite, mimetene, malachite, argentiferous galena, zinc blende, arseniate of iron, native sulphur, brown iron ore, ores of manganese, &c.

Native silver has been found also at St. Arnaud in small quantities.* Gold and silver alloys occur at Reedy Creek, a tributary of the Goulburn, and in many other quartz reefs on the gold fields. The ores of silver are found, it is said, at Pleasant Creek, and in other parts of the Ararat District.

Thirty-two leases of land have been granted for silver mining purposes for an aggregate area of 1173a. 2r. 21p. The localities are St. Arnaud and Crowlands. Twenty-five leases were in force on 31st December, 1864, for an aggregate area of 827a. 0r. 21p.

The following information has been obtained from the lessees :—

During the year 1863, 1259 tons of ore were raised at St. Arnaud, which produced 1098 ozs. 4 dwts. of silver.

During the year 1864, 3121 tons of ore were raised at St. Arnaud, which produced 5643 ozs. of silver.

In addition to the above 45 ozs. of silver were obtained from ores raised at St. Arnaud, but the quantity of ore is not given; and 100 tons of ores were reported as having been raised at the same place, but the quantity of silver obtained was not sufficient to pay for working.

Five of the lessees have failed to make returns.

One searching license has been issued for searching for the ores of silver and copper for an area of 640 acres. The locality is Phillip Island.

The following Statement of Exports has been obtained from the Customs Department :—

Year.	Silver Ore.		Silver.	
	Tons.	cwt.	Ozs.	dwts.
1861	10	6	...	
1864	...		4207	15
Totals	...	10 6	4207	15

TIN.

Stream Tin (*oxyd of tin*) occurs in many places in the mining district of Beechworth; in the beds of the tributaries of the Yarra, the Thomson, and the LaTrobe. It has been found, also, at Taradale and Strathbogie. It is believed that no veins have yet been discovered.

Locality : Woolshed Creek and all its tributaries, Beechworth. The following information has been furnished by Mr. Warden Barnard, of Beechworth :—

Very considerable quantities of black sand or tin ore have been raised during the ten years previous to 1864, but it is impossible to form an estimate of the total number of tons. About 120 tons of tin ore have been raised during the year 1864. The quantity of tin ore smelted in the district is very trifling, and cannot be even estimated. The price paid by the banks for tin ore is from £60 to £65 per ton, and the quoted value in England is from £75 to £80 per ton.

* *Vide* Report on the "Gold and Silver bearing Reefs of St. Arnaud," by George F. Ulrich, Esquire, Field Geologist.

The following Statement of Exports has been obtained from the Customs department :—

Year.	Tin Ore.	
	Tons	cwt.
1854	88	2 and 160 ingots
1855	59	13
1856	556	1
1857	707	11
1858	357	17
1859	109	3
1860	97	11
1861	148	15
1862	68	4
1863	78	0
1864	93	10

COPPER.

Native copper occurs at St. Arnaud, Specimen Gully, Castlemaine, and on the River Thomson, associated with other ores of copper. Blue and green carbonates of copper, and copper pyrites, occur in small quantities, at Steiglitz, Castlemaine, Blue Mountains, Bendigo, St. Arnaud, Inglewood, Dunolly, Gipps Land, &c. Cuproplumbite is found at McIvor.

Two leases of land have been granted for copper mining for an aggregate area of 100 acres. The locality is Heathcote, one lease was in force on the 31st December, 1864, for an area of 50 acres. From the returns made by the lessee it appears that no copper has yet been raised.

Eight searching licenses have been issued, six for searching for the ores of copper, one for silver and copper, and one for copper and other ores, for an area of 5120 acres.

ANTIMONY.

Sulphuret of antimony, and oxyd of antimony are found at Heathcote, Whroo, Anderson's Creek, Rutherglen, Maryborough, &c. Nearly all the antimony ores which have been raised, have been obtained from the mines at McIvor. Twenty-nine leases of land have been granted for the purpose of mining for the ores of antimony, for an aggregate area of 550a. Or. 35p. The localities are Heathcote and Costerfield.

Twenty-six leases were in force on the 31st December, 1864, for an aggregate area of 464a. Or. 6p.

The following information has been furnished by Mr. Warden Willoby :—

During the years 1862 and 1863, 806 tons 12 cwt. of antimony ore were obtained by the lessees.

During the year 1864, 578 tons 8 cwt. 26 lbs. of "marketable" antimony ore were obtained.

Six hundred and eighty-two and a half tons, of mixed oxides, sulphides, quartz with gold, and refuse were raised and crushed for the purpose of extracting the gold only. 8 tons 10 cwt. of crude antimony and 5 tons of regulus were reduced from ores smelted promiscuously, as experiments.

The quantities of ores &c., crushed for the gold only were so treated, because in the absence at present of proper machinery, it was the only means by which they could be rendered remunerative.

None of the lessees make any distinction in the sorting between oxides and sulphides, but merely in regard to the stone or stuff raised from the mine, whether it be sufficiently pure as "marketable" antimony ore or not; if not, it is crushed only for the gold which it may contain.

The lessees *themselves* have not smelted any ores up to the present time. The Victoria Antimony Smelting Company have erected a furnace, and other apparatus is in course of erection.

The following Statement of Exports has been obtained from the Customs Department.

Year.	Quantity of Antimony Ore Exported.	
	Tons.	cwt.
1862	154	1
1863	660	11
1864	400	8

MERCURY.

One searching license for searching for quicksilver, or the ores of quicksilver, has been issued, for an area of 640 acres. No discoveries have as yet been reported.

COAL AND LIGNITE.

COAL.

The area of the coal-bearing rocks is about 3000 square miles, or 1,920,000 acres. These rocks occur in Gipps Land, in the Counties of Grant, Bourke, Mornington, and Polwarth, and in the Portland Bay District.

Four leases of land have been granted for coal mining purposes for an aggregate area of 1827a. Or. 20p.

The localities are near the sea coast extending from Cape Paterson to Griffith's Point, in the County of Mornington. Three leases were in force on the 31st December, 1864, for an aggregate area of 1598a. 2r. 30p. The following information has been obtained from the lessees:—The lessees of the lease block, at Griffith's Point, report that they have put down a bore to a depth of 416 feet 7 inches, at a cost of about £900, and that it is intended to bore to a depth of 500 feet. The lessees of the lease block near Cape Paterson, and west of Coal Creek, report that from six to ten tons of coal were raised previous to the year 1864, but that during 1864, no coal has been raised except for samples. The capital expended on the mine amounts to £1261 7s. 8d. The machinery on the ground consists of a horse whim, poppet heads, a windlass and iron buckets, to fit the divisions of shaft No. 1, which is about 100 feet deep.

The lessees of the lease block near Cape Paterson, which is intersected by Coal Creek, report that no coal has been raised.

Thirty-one searching licenses have been issued for searching for coal, and two for coal and lignite, extending over an area of 19,569a. 3r. 11p.

LIGNITE.

Extensive deposits of lignite, some of great thickness, are found at Lal-Lal, Dalesford, and in Gipps Land. Three leases of land have been granted for mining for lignite, for an aggregate area of 649a. 3r. 18p., which were in force on 31st December, 1864. The locality is Lal-Lal near Clarendon.

From the returns made by the lessees of the Victoria Lignite Company's lease it appears that about 200 tons of lignite have been raised by them, and sold, during the year 1864, at prices varying from ten to fifteen shillings per ton. The lessees of the Australian Lignite Company's lease, report that no lignite has been raised by them, but that it is intended to work the block in connection with that of the Victoria Brown Coal Company, and that a considerable sum of money has been laid out in forming a branch from the Victorian railways and in erecting machinery &c., The lessees of the Australian Brown Coal Company's lease do not report that any lignite has been raised on their block.

One searching license has been issued for searching for lignite and two for coal and lignite, for an area of 1,210 acres.

CLAYS.

KAOLIN AND OTHER CLAYS.

Thirteen leases of land have been granted for mining for kaolin and other clays, for an aggregate area of 424a. 1r. 26p. The localities are Bulla-Bulla, Lal-Lal, and Dunolly. Two leases were in force on the 31st December, 1864, for an aggregate area of 24a. 2r. 18p.

The lessees of the lease block at Dunolly report that samples of porcelain clay have been sent to England and China, and that the clay is considered to be excellent in quality, and fit for manufacturing the best pottery. The introduction of Chinese potters from Canton into the colony of Victoria is stated to be under consideration.

The lessees of the lease block at Bulla Bulla have failed to furnish returns.

Six searching licenses have been issued for searching for kaolin, over an area of 299a. 2r. 16p.

SLATES.

FLAGS AND ROOFING SLATE.

Two leases of land have been granted for quarrying slate, for an aggregate area of 199a. Or. 10p. which were in force on the 31st December, 1864. The locality is Meredith. From information furnished by the Honorable J. B. Humffray, it appears that the Moorabool Slate Company have thirty tons of slates on the ground ready for transmission to Melbourne.

The lessees of the Victoria Slate Company's lease block have failed to furnish returns.

Three searching licenses have been issued for searching for flags and roofing slate, over an aggregate area of 1283a. 1r. The localities are Maldon and Gisborne.

MISCELLANEOUS MINERALS.

CARBONATE OF MAGNESIA OR MAGNESITE.

Three searching licenses have been issued for searching for carbonate of magnesia or magnesite for an aggregate area of 340 acres.

DIAMONDS.

Locality—Beechworth. Mr. Warden Barnard having been requested to make a statement relative to these gems, states, in his first report, as follows:—"The fact of diamonds being found in this district is affirmed on the most reliable authority; and though I have not actually seen them washed out, there cannot be any doubt of their being procured (amongst other gems of small value) during the ordinary sluicing operations of the creek claimholders, in the Woolshed Mining Division, viz.: at Reid's Creek, Wooragee, Upper Woolshed, Sebastopol, and El Dorado. The creeks running through these localities form a continuous stream and are confined to one watershed, as shown on the map of the gold diggings near Beechworth, prepared by the Board of Science, and situate north-west by west and by north of the Beechworth Municipal boundary."

In his second report Mr. Warden Barnard says,—“With respect to the number and size of diamonds I have met with every assistance possible, and am only unable to complete the return in reference to them more fully, from the fact of the original discoverers or possessors of the larger gems having left this part of the district.” The return referred to is as follows:—

APPROXIMATE STATEMENT of the NUMBER and FINENESS of DIAMONDS discovered and obtained in the Beechworth Mining District prior to the end of the Year 1864.

Number.	Fineness.	Where Found.
6	$\left\{ \begin{array}{l} \text{One-eighth of} \\ \text{of a carat to} \\ \text{two and a half} \\ \text{carats.} \end{array} \right\}$	El Dorado, Woolshed Creek
4		Napoleon ..
9		Woolshed
2		Reid's Creek and Wooragee
1		Yackandandah
18	...	...
Total ... 40*	—	—

* Twenty-two of these have been traced to the possession of individuals.

In the Mining Surveyor's Report for the Beechworth Subdivision, for the quarter ending 31st December, 1864, the following paragraph occurs, “Nothing particular has occurred in mining matters in the Woolshed Subdivision, except the finding of a diamond by a Chinaman, at Sebastopol; it is I believe a very beautifully shaped one, and will require very little cutting: it weighs 17·64 carats.”

SAPPHIRES, ETC.

Sapphires, blue, green, and red; spinel ruby; topazes, colorless, blue, and pink; and fine crystals of zircon are found in the gold drifts. Though these stones have not been sought for systematically, many fine specimens have been procured from the miners by private collectors. It is impossible to give any account of the number or value of the stones which have been procured from time to time since the discovery of gold.

R. BROUGH SMYTH,

Secretary for Mines.

Mining Department,
Melbourne, 13th March, 1865.

for donations

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1866.

—
VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1865.

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SMITHSONIAN INSTITUTION

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PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority:

JOHN FERRES, GOVERNMENT PRINTER, MELBOURNE

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MEMORANDUM.

The MINERAL STATISTICS for 1865 contain more useful information, and are in every respect more complete, than those which have been presented to Parliament in previous years.

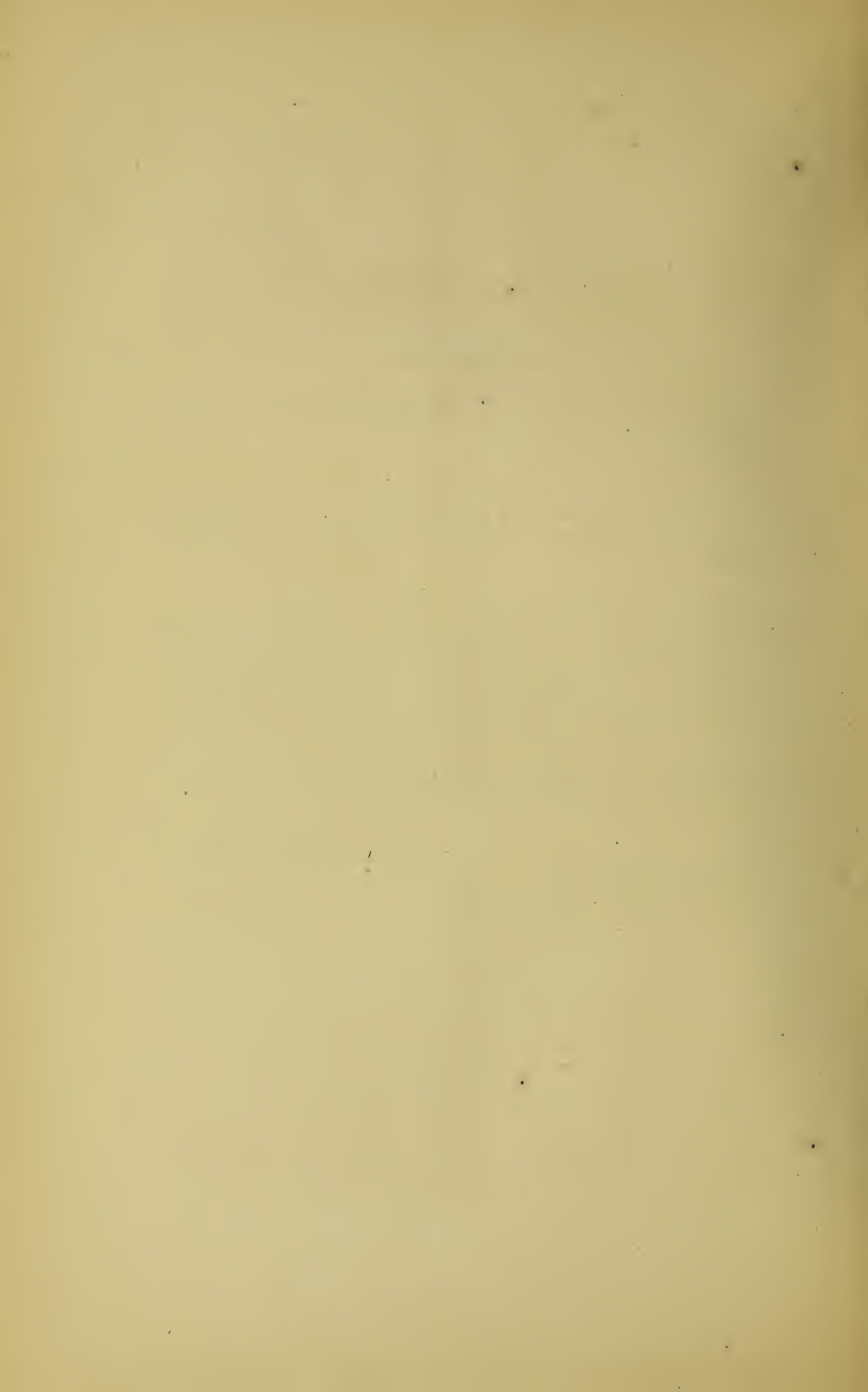
The officers in Melbourne and in the country have willingly responded to the calls made on them ; and nearly all the lessees and licensees of Crown lands have also freely communicated information respecting their operations.

There are difficulties in this new country in compiling such statistics as these, because of the great extent of territory over which the operations of the miners extend, and the nature of their pursuits ; but, at the same time, there are facilities for gaining information respecting the results of their labors, which are not generally found in other countries where mining pursuits are followed by a large section of the population.

These statistics, I am satisfied, have been faithfully compiled, and I am glad to be able to lay them before Parliament at so early a date.

J. F. SULLIVAN,
Minister of Mines.

Office of Mines,
Melbourne, 10th March, 1866.



MINERAL STATISTICS, 1865.

THE Mining Registrars and Surveyors and the lessees of auriferous and mineral lands have, with a few unimportant exceptions, furnished full and, in most cases, complete returns for the year 1865. These returns have been carefully revised ; and the paper now submitted for presentation to Parliament contains, I believe, more valuable information relative to the condition of the gold workings and mineral lands of the colony than any other which has emanated from this Department. This is owing as much to the care and attention of the Wardens, Mining Registrars, and Mining Surveyors who are stationed in the country, as to the exertions made by the Officers in Melbourne. Anxious to prepare the statistics without delay—in order that the information they contain may be turned to useful account before the condition of the miners, and the operations to which the statistics relate, have undergone important changes—I have at the same time not forgotten that unwise haste would probably lead to omissions and errors. The tables have been framed with due care, and many items of information relating to the events of past years are now published for the first time.

An endeavour has been made to lay the groundwork of a history of the progress of the gold workings and other mines ; and it will not be the less interesting because it is told mainly in figures.

GOLD.

Using the mean numbers for the year 1865, it appears that the decrease in the number of gold miners, as compared with 1864, is only 183. There is a decrease in the mean number of alluvial miners of 2,498, and an increase in the mean number of quartz miners of 2,315. A comparison of the numbers of persons engaged in gold mining in the last quarter of 1865 with the last quarter of 1864 is not so favorable ; there is a great falling off. There is a decrease in the number of alluvial miners of 6,692, and an increase of the number of quartz miners equal to 1,163.

The changes in the several districts are best shown by the following statements, where the numbers given for the last quarter of 1864 are compared with those for the last quarter of 1865 :—

ALLUVIAL MINERS.

Districts.	1864.	1865.	Decrease.	Increase.
Ballarat	14,980	13,969	1,011	...
Beechworth	11,748	10,141	1,607	...
Sandhurst	8,824	6,677	2,147	...
Maryborough... ..	14,945	12,320	2,625	...
Castlemaine	14,171	14,542	...	371
Ararat	4,155	4,482	...	327
Total	68,823	62,131	7,390	698

QUARTZ MINERS.

Districts.	1864.	1865.	Decrease.	Increase.
Ballarat	2,350	3,201	...	851
Beechworth	4,117	4,617	...	500
Sandhurst	3,504	3,876	...	372
Maryborough... ..	3,046	2,457	589	...
Castlemaine	2,486	2,365	121	...
Ararat	660	810	...	150
Total	16,163	17,326	710	1,873

Last year attention was directed to the increase of the number of quartz miners, and a table was given showing that the number of persons employed in this branch of mining had not, during a period of six years, departed largely from the mean. The increase in the numbers this year is, however, larger than usual. It is probable that many are employed in opening mines in which gold has not been struck, and prospecting, for the earnings of this class are not so large as they were last year.

Year.	ALLUVIAL MINERS.		QUARTZ MINERS.	
	Numbers.*	Earnings per man per annum.	Numbers.*	Earnings per man per annum.
		£ s. d.		£ s. d.
1863	76,343	59 7 10 $\frac{1}{4}$	16,024	123 3 9 $\frac{1}{2}$
1864	67,982	61 6 0	15,414	130 13 9 $\frac{3}{4}$
1865	65,484	66 16 3	17,730	101 10 5 $\frac{1}{2}$

* Average numbers employed throughout the year ; not the numbers employed in the month of December in each year.

The average earnings per man per annum, without distinction of classes, were £74 4s. 2d., an increase on last year which is remarkable, when the state of the weather during the past year is considered.

There is no great change in the number of Chinese miners ; and, as heretofore, nearly all of them are employed in alluvial mining.

The numbers for each year are as follows :—

1855	...	...	...	...	19,244
1856	...	...	...	...	18,109
1857	...	...	...	...	36,327
1858	...	...	...	...	33,673
1859	...	...	...	...	26,044
1860	...	...	...	...	24,886
1861	...	...	...	...	* 24,544
1862	...	...	...	...	* 23,662
1863	...	...	...	...	* 23,283
1864	...	...	...	...	* 21,597
1865	...	...	...	...	* 20,933

Only 28 Chinese miners were engaged in quartz mining in 1865.

Comparing the tables relating to machinery used on the gold fields with those for past years, one sees reason for congratulation. The steady increase in the number of steam engines, and the gradual disuse of the less efficient machines, for crushing, hauling, and pumping, show that the capitalist is slowly, but surely, overcoming those obstacles which have heretofore retarded the progress of our mines.

The figures for the years 1864 and 1865 are as follows † :—

Year.			ALLUVIAL MINING.		QUARTZ MINING.		
			Steam Engines employed in Winding, Pumping, Puddling, &c.		Steam Engines employed in Winding, Crushing, &c.		
			Number.	Aggregate Horse-power.	Number.	Aggregate Horse-power.	Number of Stamp-Heads.
1864	...	...	441	6,891	447	7,746	4,575
1865	...	...	473	8,208	491	8,606	5,119

The increase last year in the number of steam engines employed in alluvial mining was 84, and this year 32 ; in quartz mining the increase for 1865 is 44, as against 12 in 1864.

The estimated value of all the mining plant is £1,773,271.

From the returns furnished by the Mining Registrars it appears that there are 2,029 distinct auriferous quartz reefs, and 725 square miles of auriferous ground, which have been worked, more or less, since the first discovery of the Gold Fields. It is difficult to arrive at the number of distinct quartz reefs, because parts of the same reef, in some localities, are held to be distinct, and named accordingly, and new reefs are being discovered every day. Nor is it easy to give an accurate account of the number of acres of auriferous land which have been opened up. It is well known that large areas of non-auriferous land are included in some registered claims ; and in

* From returns for the last quarter of the year.

† For previous years *vide* "Mineral Statistics, 1864."

other places, ground which was formerly held and worked by the miner, and abandoned as exhausted, is now under cultivation.

Of the 464,000 acres which have been opened up there are, according to the returns, 118,757a. 1r. 7p., actually held by the miners under the Bye-laws of the Mining Boards. There are 79,025a. 2r. 32p. held and worked as "Claims," and 39,731a. 2r. 15p. protected by certificates, &c.

The value of all the "Claims" throughout the country is estimated by the Registrars and Surveyors at £8,498,924.

Every care has been taken this year, as formerly, to obtain accurate, and as far as possible complete, returns of the yields of gold from quartz reefs; and Table No. 18 will be regarded with interest.

The yield from 700,339 $\frac{3}{4}$ tons of quartz (taken from veins) was 410,696 oz. 5 dwt., equal to 11 dwt. 17·4 gr. per ton. Last year the average was 10 dwt. 6·9 gr. per ton; and, adding together all the quantities from 1859 to 1865, it is found that 3,110,328 tons have yielded, on the average, 12 dwt. 6·375 gr. of gold per ton.

This only represents the "crushings" respecting which the Mining Surveyors have been able to get information, and does not show the total quantity of quartz put through the mills.

Of the quartz tailings, cement, mullock, &c., crushed during the year, the Surveyors and Registrars have got returns relating to 196,421 $\frac{5}{8}$ tons, which gave 45,814 oz. 19 dwt.—equal to 4 dwt. 16 gr. of gold per ton.

The prices per ton for crushing quartz and cement ranged from 2s. 6d., to £1 10s. 0d.

Table No. 26 shows that 1,936 miles 26 chains of races have been constructed, which have cost approximately £267,171—or £138 0s. 0d. per mile. The quantity of water diverted in these races per diem, in ordinary seasons, is 459,281,124 gallons. A great many new races have been made in Gipps Land during the past year.

The number of Leases of land granted during the year 1865 for gold mining purposes is 719—for 13,918a. 3r. 3p.; and the number actually in force on the 31st December, 1865, was 1,043—for 15,779a. 1r. 17p.

The operations of the Lessees have been carefully watched during the past year, and whenever it was discovered that the lands were not being properly worked, the holders of the Leases were compelled, either to employ a reasonable number of men, or to relinquish the lands. Great care was exercised at the same time, and many enquiries made, in order that no injustice might be done to those who were prevented by inevitable accidents from complying with the covenants.

It will be seen that the total area of land held under lease is very small as compared with that occupied under the Bye-laws of the Mining Boards; very much smaller, indeed, than the area which, under that system, was lying unworked, but protected by certificates, &c., at the close of the year. It is obvious that the two systems—that of leasing and that of holding under the Bye-laws—dove-tail into each other; and both are necessary to the proper working of our auriferous lands.

Forty-nine Water-Right Licenses for gold mining purposes were

issued during the year 1865, for 172 miles 43 chains of Races ; and 257a. Or 37p. of Reservoirs. The total quantities of water to be diverted, per diem, are 62,829,300 gallons, and the Reservoirs are estimated to contain 69,376,000 gallons. The capital proposed to be invested is set down at £75,907. Many of the Races were already constructed at the time the applications were made. The applicants were desirous only of securing a better tenure.

The number of Water-Right Licenses granted for other than mining purposes was two—for 65 chains of races, and 7a. 3r. 1p. of reservoirs. The total quantities of water to be diverted per diem are 540,000 gallons, and the aggregate capacity of the reservoirs is 1,035,000 gallons. The capital proposed to be invested is £1,000.

The number of Miners' Rights issued during the past year was 24,495. Table No. 37 shows the numbers of "Rights" and "Tickets" issued every year since 1855.

METALS AND MINERALS OTHER THAN GOLD.

The holders of Leases and Licenses have, this year, very freely given information respecting their proceedings, and the notes appended to the tables will be found to contain matter useful as well to the prospector as to the miner.

The following estimate of the value of the metals and minerals raised in the Colony, from the first discovery of the Gold Fields, to the 31st December, 1865, has been compiled with care :—

GOLD	... Quantity raised from the date of the first discovery, to the 31st December, 1865, 30,998,071 ozs., @ £4 per oz.	£ 123,992,284
SILVER	... Ore raised, 5,880 tons. Produce of Silver from Ore smelted, 10,165½ ozs., @ 5s. 6d. per oz.	2,795
TIN	... Ore exported, 2,380¾ tons, @ £75 per ton, £178,556 Tin exported—say 3 tons 12 cwt. 3 qrs. 12 lbs., @ £140 per ton	510 179,066
ANTIMONY...	Ore raised, 2,114 tons and 26 lbs., @ £12 per ton	25,368
COAL	... 1,933 tons, @ £1 10s. per ton	2,899
LIGNITE	... 235 tons, @ 17s. 6d. per ton...	205
KAOLIN	... 1,757 tons, @ £4 per ton	7,028
FLAGGING...	1,500 square yards, @ 8s. per square yard	600
SLATES	... 1,000, @ £8 per 1,000 43 tons, @ £4 per ton	8 172
		180
DIAMONDS...	About 79 carats, @ £1 per carat	79
SAPPHIRES	Numbers cannot be estimated—say	150
Total ...		£124,210,654

NOTE.—No estimate can be formed of the quantities of Gold which have been sent out of the Colony privately, nor of the quantity used and manufactured for colonial purposes.

The prices of the several Ores, &c., have been obtained from persons best acquainted with the market value of them.

Office of Mines,
Melbourne, 10th March, 1866.

R. BROUGH SMYTH,
Secretary for Mines.



GOLD.

No. 1.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1865.

QUARTER.	BALLARAT.			BEECHWORTH.			SANDHURST.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
First Quarter ending March 31st ...	15,421	2,565	17,986	10,666	4,966	15,632	7,960	3,606	11,566
Second Quarter ending June 30th ...	15,074	2,798	17,872	9,658	5,417	15,075	8,047	3,795	11,842
Third Quarter ending Sept. 30th ...	14,822	3,558	18,380	10,328	4,986	15,314	7,259	3,869	11,128
Fourth Quarter ending Dec. 31st ...	13,969	3,201	17,170	10,141	4,617	14,758	6,677	3,876	10,553

QUARTER.	MARYBOROUGH.			CASTLEMAINE.			ARARAT.		
	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.	Alluvial.	Quartz.	Total.
First Quarter ending March 31st ...	14,858	2,874	17,732	14,094	2,596	16,690	4,316	690	5,006
Second Quarter ending June 30th ...	14,570	2,928	17,498	14,979	2,510	17,489	4,660	630	5,290
Third Quarter ending Sept. 30th ...	13,446	2,683	16,129	15,143	2,502	17,645	4,505	620	5,125
Fourth Quarter ending Dec. 31st ...	12,320	2,457	14,777	14,542	2,365	16,907	4,482	810	5,292

QUARTER.	GRAND TOTALS.		
	Alluvial.	Quartz.	Total.
First quarter ending March 31st ...	67,315	17,297	84,612
Second quarter ending June 30th ...	66,988	18,078	85,066
Third quarter ending Sept. 30th ...	65,503	18,218	83,721
Fourth quarter ending Dec. 31st ...	62,131	17,326	79,457

NOTE.—The mean number of miners employed during the year was 83,214; and the total quantity of gold exported, 1,543,801 ozs., which, at £4 per oz., gives £74 4s. 2d. per man per annum. The rate per man per annum for the year 1864 was £74 1s. 9-298d.*; for 1863, £70 9s 2-436d.; for 1862, £67 17s. 10-68d.; and for 1861, £74 75s. 11d.

* The return of the quantity of gold exported during the year 1864, as furnished by the Customs Department, has been corrected in a later return; instead of 1,543,449 ozs. 15 dwts., as set down in the Statistics for 1864, the quantity was 1,554,694 ozs. 15 dwts.

No. 2.

SUMMARY.

NUMBER OF MINERS employed in the several MINING DISTRICTS during the Quarter ending 31st December, 1865.

MINING DISTRICTS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District ...	10,113	3,856	3,195	6	13,308	3,862	17,170
Beechworth District ...	5,067	5,074	4,617	...	9,684	5,074	14,758
Sandhurst District ...	5,250	1,427	3,876	...	9,126	1,427	10,553
Maryborough District ...	8,728	3,592	2,455	2	11,183	3,594	14,777
Castlemaine District ...	9,455	5,087	2,345	20	11,800	5,107	16,907
Ararat District ...	2,613	1,869	810	...	3,423	1,869	5,292
Totals ...	41,226	20,905	17,298	28	58,524	20,933	79,457

No. 3.

NUMBER OF MINERS employed in the MINING DISTRICT OF BALLARAT during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Number One Division	1,710	60	...	...	1,710	60	1,770
Number Two Division	90	360	660	...	750	360	1,110
Number Three Division	216	262	133	...	349	262	611
Number Four Division	1,898	794	162	6	2,060	800	2,860
Buninyong Division	1,930	300	270	...	2,200	300	2,500
Smythesdale Division	2,540	600	60	...	2,600	600	3,200
Creswick Division	970	800	600	...	1,570	800	2,370
Gordon Subdivision	37	...	40	...	77	...	77
Steiglitz Subdivision	60	260	1,020	...	1,080	260	1,340
Blackwood Subdivision	627	410	250	...	877	410	1,287
Blue Mountain South Subdivision	35	10	...	...	35	10	45
Totals	10,113	3,856	3,195	6	13,308	3,862	17,170

No. 4.

NUMBER OF MINERS employed in the MINING DISTRICT OF BEECHWORTH during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Subdivision	780	990	165	...	945	990	1,935
Stanley Subdivision	267	209	27	...	294	209	503
Yackandandah Subdivision	922	600	160	...	1,082	600	1,682
Sandy Creek Subdivision	20	150	...	...	20	150	170
Indigo Division	361	236	12	...	373	236	609
Buckland Division	328	2,064	222	...	550	2,064	2,614
Crooked River Subdivision	320	140	486	...	806	140	946
Jordan North and part of Omeo Subdivisions	603	215	2,318	...	2,921	215	3,136
Jordan South Subdivision	783	200	1,202	...	1,985	200	2,185
Omeo Central Subdivision	196	210	20	...	216	210	426
Snowy Creek Subdivision	487	60	5	...	492	60	552
Totals	5,067	5,074	4,617	...	9,684	5,074	14,758

No. 5.

NUMBER OF MINERS employed in the MINING DISTRICT OF SANDHURST during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Kangaroo Flat Subdivision	850	600	1,300	...	2,150	600	2,750
Eaglehawk Subdivision	3,156	570	1,180	...	4,336	570	4,906
Kilmore Division	290	...	259	...	549	...	549
Heathcote Division and Waranga South Subdivision	400	130	500	...	900	130	1,030
Waranga North Subdivision	54	77	487	...	541	77	618
Raywood Division	500	50	150	...	650	50	700
Totals	5,250	1,427	3,876	...	9,126	1,427	10,553

No. 6.

NUMBER OF MINERS employed in the MINING DISTRICT OF MARYBOROUGH during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	2,550	1,490	620	...	3,170	1,490	4,660
Amherst Division	1,790	421	280	...	2,070	421	2,491
Arcoa Subdivision	971	835	14	...	985	835	1,820
Dunolly Division	2,070	440	540	...	2,610	440	3,050
Korong Division	660	300	545	...	1,205	300	1,505
Redbank and St. Arnaud South Sub- divisions }	480	30	270	...	750	30	780
St. Arnaud North Subdivision ...	207	76	186	2	393	78	471
Totals	8,728	3,592	2,455	2	11,183	3,594	14,777

No. 7.

NUMBER OF MINERS employed in the MINING DISTRICT OF CASTLEMAINE during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division	920	1,500	462	10	1,382	1,510	2,892
Fryer's Creek Subdivision	1,437	1,443	211	10	1,648	1,453	3,101
Hepburn Division	4,687	780	585	...	5,272	780	6,052
Taradale Subdivision	644	200	240	...	884	200	1,084
Maldon Division	596	978	603	...	1,199	978	2,177
St. Andrew's Division	471	156	144	...	615	156	771
Blue Mountain North Subdivision ...	700	30	100	...	800	30	830
Totals	9,455	5,087	2,345	20	11,800	5,107	16,907

No. 8.

NUMBER OF MINERS employed in the MINING DISTRICT OF ARARAT during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTAL.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division	585	645	310	...	895	645	1,540
Pleasant Creek Division	488	250	500	...	988	250	1,238
Raglan Division	400	764	...	...	400	764	1,164
Barkly Division	1,140	210	...	...	1,140	210	1,350
Totals	2,613	1,869	810	...	3,423	1,869	5,292

No. 10.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF BALLARAT DURING THE QUARTER ENDING 31st DECEMBER, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.			
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp-Heads.	Whims and Pulleys.	Water Wheels.	Derricks.		Whips.	Quicksilver Cradles.	
	Number.	Aggregate Horse-power.																			
Number One Division	66	940	67	14	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	70,900
Number Two Division	6	46	45	2	..	..	..	..	..	..	..	..	..	..	164	4	..	..	..	34,500
Number Three Division	8	102	51	10	..	..	..	..	..	..	..	..	..	88	..	..	..	..	..	40,000
Number Four Division	46	1,186	85	3	7	..	..	..	..	..	..	..	1	6	135	5	..	..	2	79,000
Buninyong Division	40	650	45	35	..	..	..	..	..	..	..	..	..	..	88	..	..	..	..	63,000
Smythesdale Division	72	1,500	73	17	..	..	..	..	..	..	..	..	..	1	40	..	..	..	..	80,000
Creswick Division	21	333	180	10	6	..	..	..	..	..	..	..	..	38	204	..	..	..	..	112,000
Gordon Subdivision	1	8	..	..	1	..	..	..	..	..	..	..	..	..	23	..	..	..	..	3,000
Steiglitz Subdivision	6	145	..	..	..	..	..	..	..	..	48	3	..	28	178	..	..	15	..	61,200
Blackwood Subdivision	1	15	2	1	..	..	..	8	..	..	..	..	..	..	170	9	11	..	..	29,700
Blue Mountain South Subdivision	..	..	2	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	50
Totals	267	4,925	550	92	14	2	8	48	3	1	73	1,090	18	11	15	2	..	573,350

No. 11.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF BEECHWORTH DURING THE QUARTER ENDING 31st DECEMBER, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.											QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.				
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp-Heads.	Steam Engines employed in Winding, Crushing, &c.								
	Number.	Aggregate Horse- Power.													Number.	Aggregate Horse- Power.							
Beechworth Subdivision	17	177	8	12	5	...	190	31	20	59	2,800	...	...	...	6	80	26	2	4	...	...	...	27,200
Stanley Subdivision	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	8	18	1	...	...	...	...	5,300
Yackandandah Subdivision	...	...	...	...	...	...	...	40	...	...	...	...	...	...	...	3	8	1	3	...	...	...	4,000
Sandy Creek Subdivision	...	...	...	...	...	...	...	5	...	5	...	...	...	...	...	...	...	...	...	...	...	...	600
Indigo Division	19	308	60	37	30	...	...	...	...	...	...	...	...	...	...	32	38	3	...	...	...	...	35,900
Buckland Division	11	139	...	2	...	...	...	82	12	...	...	...	...	...	...	167	83	7	8	...	...	...	36,500
Crooked River Subdivision	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	66	80	6	2	...	...	...	28,600
Jordan North and part of Omeo } Subdivisions ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	282	145	8	17	...	...	...	70,083
Jordan South Subdivision	4	52	2	...	...	...	...	22	...	...	98	...	...	...	...	70	100	5	...	1	...	...	50,548
Omeo Central Subdivision	...	...	...	...	...	...	...	...	...	25	300	...	...	...	...	...	...	...	...	...	...	...	800
Snowy Creek Subdivision	...	...	...	4	...	...	...	...	...	9	1,022	...	...	...	...	...	...	...	...	...	...	...	1,100
Totals	51	676	82	55	35	...	190	180	32	98	4,220	...	...	...	39	733	498	33	...	35	...	...	260,631

No. 12.

NUMBER OF MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT OF SANDHURST during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant or Subdivision. £		
	Steam Engines employed in Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp-Heads.	Whims and Pulleys.	Water Wheels.	Derricks.		Whips.	Quicksilver Cradles.
	Number.	Aggregate Horse-power.																		
Kangaroo Flat Subdivision	27	363	330	..	..	..	..	..	..	..	..	..	..	..	666	..	..	..	..	140,000
Eaglehawk Subdivision	..	..	292	..	..	..	..	..	..	..	..	..	..	..	257	..	..	..	..	145,000
Kilmore Division	..	..	6	..	..	..	..	..	..	..	80	..	..	..	54	..	..	..	..	7,715
Heathcote Division and Waranga } South Subdivision	..	..	75	1	..	..	4	..	..	..	..	..	..	..	95	4	352	16	7	39,650
Waranga North Subdivision	..	..	55	..	..	..	..	..	..	..	..	..	..	..	94	..	96	8	18	20,000
Raywood Division	..	..	45	..	..	..	..	..	..	..	..	..	..	..	54	..	52	5	..	10,350
Totals	27	363	803	1	..	..	4	1	..	..	80	..	..	..	1,220	16	..	2,288	25	362,715

No. 13.

NUMBER OF MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT OF MARYBOROUGH during the Quarter ending 31st December, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.			
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp-Heads.	Whims and Pulleys.	Water Wheels.	Derricks.		Whips.	Quicksilver Cradles.	
	Number.	Aggregate Horse-power.																			
Maryborough Division	19	299	310	115	..	..	..	..	..	..	..	..	..	170	10	170	..	..	25	..	51,600
Amherst Division	13	195	217	45	10	..	..	..	1	..	..	..	..	38	3	38	..	..	..	..	21,900
Arco Subdivision	5	124	90	..	..	30	..	..	..	4	..	..	1	..	29	..	..	..	..	..	10,000
Dunolly Division	..	77	130	19	..	..	..	..	..	..	..	..	..	42½	29	..	..	..	..	..	52,000
Korong Division	..	..	72	1	..	..	..	..	..	..	..	..	..	270	22	..	..	24	28	..	30,000
Redbank and St. Arnaud South Subdivisions	1	10	16	..	..	..	..	..	..	..	..	..	..	65	4	65	5	..	..	..	2,000
St. Arnaud North Subdivision	1	10	16	..	..	4	..	..	..	..	..	..	..	106	7	106	17	..	..	..	15,000
Totals	45	715	851	180	10	34	..	..	1	4	..	..	1	1,073	75	1,073	46	..	53	..	182,500

No. 14.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF CASTLEMAINE DURING THE QUARTER ENDING 31st DECEMBER, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.					
	Steam Engines employed in Pumping, Winding, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp-Heads.	Boring Machines.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp-Heads.	Whims and Pulleys.		Water Wheels.	Derricks.	Whips.	Cradles.	
	Number.	Aggregate Horse- power.														Number.	Aggregate Horse- power.									
	Castlemaine Division	6	96	240	45	54	3	26	..	25	416	25	270		31
Fryer's Creek Subdivision	12	260	234	12	..	73	110	4	..	..	..	..	..	108	..	8	117	..	70	3	..	..	..	14	..	51,000
Hepburn Division	24	610	219	49	..	..	..	..	..	..	..	..	..	..	..	31	526	3	308	44	3	..	..	..	..	77,060
Taradale Subdivision	12	253	15	18	4	..	..	..	..	..	..	..	..	..	..	11	114	..	100	2	..	..	..	1	..	26,000
Maldon Division	1	10	74	..	..	..	15	3	..	..	..	5	..	..	..	33	632	..	320	45	6	..	..	..	..	70,385
St. Andrew's Division	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	5	44	1	43	..	1	..	..	..	..	6,200
Blue Mountain North Subdivision...	5	34	...	..	..	..	3	..	..	..	8	..	..	..	..	3	40	..	16	..	..	..	..	..	..	8,500
Totals	60	1,263	798	79	49	78	182	7	..	..	8	5	3	134	..	116	1,889	29	1,127	125	10	..	..	15	..	304,145

No. 15.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF ARARAT DURING THE QUARTER ENDING 31st DECEMBER, 1865.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.								
	Steam Engines employed in Pumping, Winding, &c.			Puddling Machines.	Whims and Pulleys.	Whips.	Horse Pumps.	Sluices and Toms.	Water Wheels.	Hydraulic Hoses.	Pumps.	Sluice Boxes.	Derricks.	Crushing Machines.	Stamp-Heads.	Boring Machines.	Steam Engines employed in Winding, Crashing, &c.		Crushing Machines.	Stamp-Heads.		Whims and Pulleys.	Water Wheels.	Derricks.	Whips.	Cradles.			
	Number.	Aggregate Horse- power.	Number.														Aggregate power.												
				2	12	56		8	140	..	50
Ararat Division	76	11	3	..	..	..	..	..	..	..	46	..	..	..	..	..	12	338	9	248	26	..	..	3	..	10	61,200	
Pleasant Creek Division	166	49	14	1	..	..	..	..	..	..	..	..	..	..	..	..	1	10	..	12	..	..	..	..	..	..	9,270	
Raglan Division	12	28	3	6	..	..	..	..	..	..	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,200	
Barkly Division	3,200
Totals	..	266	144	20	7	..	..	..	..	..	..	72	..	..	20	12	..	21	488	9	310	26	..	..	3	10	..	89,930

No. 16.

SUMMARY.

NUMBER OF DISTINCT QUARTZ REEFS actually proved to be Auriferous, and the TOTAL EXTENT, in Square Miles, of AURIFEROUS ALLUVIAL and QUARTZ GROUND actually worked upon in the several MINING DISTRICTS.

MINING DISTRICTS.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent, in Square Miles, of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District	142	69½
Beechworth District	618	196⅓
Sandhurst District	363	182½
Maryborough District	540	76½
Castlemaine District	324	137¾
Ararat District	42	63¼
Totals	2,029	725⅞

NOTE.—The number of “distinct” quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored it is found, too, that what were supposed to be separate reefs are not really distinct.

The return of the area of auriferous ground actually worked on for 1864 is in excess of that for 1865. As now set down, it is but a rough approximation, and indeed cannot be otherwise. The area is less, in consequence of the Surveyors and Registrars having been instructed to make the computations on an uniform plan, and with great care; and it is believed that the figures given this year are not very far from the truth. But large areas of non-auriferous ground are included in some claims; and in other places, ground which was formerly held and worked by the miner is now under cultivation.

No. 17.

TABLE showing the NUMBER OF DISTINCT QUARTZ REEFS actually proved to be Auriferous, and the TOTAL EXTENT, in Square Miles, of AURIFEROUS ALLUVIAL and QUARTZ GROUND actually worked upon in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent, in Square Miles, of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT.	Number One Division	5	1½	
	Number Two Division	7	1¼	
	Number Three Division	6	3½	
	Number Four Division	8	8½	
	Buninyong Division	12	14½	
	Smythesdale Division	9	11	
	Creswick Division	14	8½	
	Gordon Subdivision	17	2½	
	Steiglitz Subdivision	48	13	
	Blackwood Subdivision	13	2½	
	Blue Mountain South Subdivision	3	2½	
	Totals	142	69½	

TABLE showing the NUMBER of DISTINCT QUARTZ REEFS, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent, in Square Miles, of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BEECHWORTH.	Beechworth Subdivision	22	14	
	Stanley Subdivision	15	12 $\frac{1}{4}$	
	Yackandandah Subdivision	32	9	
	Sandy Creek Subdivision ... ..	...	2	
	Indigo Division	12	1 $\frac{1}{3}$	
	Buckland Division	84	53	
	Crooked River Subdivision	280	46	
	Jordan North and part of Omeo Subdivisions	118	35 $\frac{5}{8}$	
	Jordan South Subdivision	40	15	
	Omeo Central Subdivision	12	5	
	Snowy Creek Subdivision	3	2 $\frac{3}{4}$	
	Totals	618	196 $\frac{13}{30}$	
SANDHURST.	Kangaroo Flat Subdivision	75	7	
	Eaglehawk Subdivision	66	6 $\frac{1}{2}$	
	Kilmore Division... ..	32	30	
	Heathcote Division and Waranga South Sub- division }	96	80	
	Waranga North Subdivision	78	9	
	Raywood Division	16	50	
	Totals	363	182 $\frac{1}{2}$	
MARYBOROUGH.	Maryborough Division	118	4 $\frac{1}{2}$	
	Amherst Division	45	4	
	Avoca Subdivision	7	8	
	Dunolly Division..	158	13 $\frac{3}{4}$	
	Korong Division... ..	140	30	
	Redbank and St. Arnaud South Subdivisions	24	9 $\frac{1}{2}$	
	St. Arnaud North Subdivision	48	6	
	Totals	540	76 $\frac{1}{20}$	
CASTLEMAINE.	Castlemaine Division	90	9	
	Fryer's Creek Subdivision	27	28 $\frac{3}{4}$	
	Hepburn Division	82	47	
	Taradale Subdivision	26	19	
	Maldon Division... ..	53	9 $\frac{1}{2}$	
	St. Andrew's Division	41	17 $\frac{1}{2}$	
	Blue Mountain North Subdivision	5	7	
	Totals	324	137 $\frac{3}{4}$	
ARARAT.	Ararat Division	14	33 $\frac{1}{2}$	
	Pleasant Creek Division	18	11 $\frac{1}{5}$	
	Raglan Division	4	5	
	Barkly Division	6	13 $\frac{1}{8}$	
	Totals	42	63 $\frac{11}{24}$	

No. 18.

AVERAGES.

SUMMARY.—AVERAGE YIELD of GOLD from certain parcels of QUARTZ CRUSHED in 1865, in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.				Tons Crushed.	Total Produce.		Average Yield per Ton.		
					oz.	dwt.	oz.	dwt.	grs.
Ballarat District	...	...	...	253,812	65,520	12	0	5	3·9
Beechworth District	...	...	...	80,804 $\frac{1}{4}$	110,831	17	1	7	10·3
Sandhurst District	...	...	...	122,247	82,477	13	0	13	11·8
Maryborough District	...	...	...	86,158	47,051	12	0	10	22·1
Castlemaine District	...	...	...	117,674	77,705	12	0	13	4·9
Ararat District ...	...	...	...	39,644 $\frac{1}{2}$	27,108	19	0	13	16·7
Totals ...	...	...	...	700,339 $\frac{3}{4}$	410,696	5	0	11	17·4

NOTE.—The above Table does not show the total quantity of Quartz crushed in the several localities, but only the yield of certain “crushings” respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district, as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the statistics, information has been obtained concerning 3,110,328 tons which have been crushed, which yielded an average of 12 dwts. 6·375 grs.

Except in the Beechworth District, where the crushing power has been much increased during the year, the amount of quartz crushed is less in the several districts than in 1864. This is owing in a great measure to the drought, which has caused the stoppage of many machines, whether worked by steam or water power.

No. 19.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ CRUSHED in 1865, in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.			Tons Crushed.	Total Produce.		Average Yield per Ton.			Remarks.
					oz.	dwt.	oz.	dwt.	grs.	
BALLARAT.	Number One Division	...	...	...	...	...	...	...	...
	Number Two Division	...	...	42,041	7,433	9	0	3	12·8	
	Number Three Division	...	...	35,256	6,578	13	0	3	17·5	
	Number Four Division	...	...	29,724	6,971	10	0	4	16·5	
	Buninyong Division	...	...	23,818	4,053	7	0	3	9·6	
	Smythesdale Division	...	...	9,028	2,338	14	0	5	4·3	
	Creswick Division	...	...	75,786	27,577	19	0	7	6·6	
	Gordon Subdivision	...	...	12,245	2,171	11	0	3	13·1	
	Steiglitz Subdivision	...	...	7,018	2,920	8	0	8	7·7	
	Blackwood Subdivision	...	...	18,896	5,475	1	0	5	19·0	
	Blue Mountain South Subdivision	...	...	...	...	...	...	...	...
	Totals	...	...	253,812	65,520	12	0	5	3·9	

TABLE showing the AVERAGE YIELD of GOLD, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
BEECHWORTH.	Beechworth Subdivision	547½	oz. dwts. 777 1	oz. dwts. grs. 1 8 9	
	Stanley Subdivision	1,913	2,264 7	1 3 16	
	Yackandandah Subdivision	4,356½	2,976 18	0 13 16	
	Sandy Creek Subdivision ... ..	...	...	...
	Indigo Division	5,469	1,328 14	0 4 20·6	
	Buckland Division	23,966	8,901 10	0 7 10·2	
	Crooked River Subdivision	2,687½	5,871 16	2 3 16·8	
	Jordan North and part of Omeo Sub- divisions	35,727½	71,076 13	1 19 19	
	Jordan South Subdivision	6,137½	17,634 18	2 17 11·1	
	Omeo Central Subdivision ... ..	...	...	...
	Snowy Creek Subdivision ... ..	...	...	...
	Totals	80,804½	110,831 17	1 7 10·3	
SANDHURST.	Kangaroo Flat Subdivision	64,837	39,683 1	0 12 5·7	
	Eaglehawk Subdivision	45,066	25,344 13	0 11 5·9	
	Kilmore Division	251	1,209 19	4 16 9·8	
	Heathcote Division and Waranga } South Subdivision	6,090	7,369 1	1 4 4·8	
	Waranga North Subdivision... ..	4,903	7,552 16	1 10 19·4	
	Raywood Division	1,100	1,318 3	1 3 23·1	
	Totals	122,247	82,477 13	0 13 11·8	
MARYBOROUGH.	Maryborough Division	37,944	20,927 0	0 11 0·7	
	Amherst Division	3,011	1,630 14	0 10 20	
	Avoca Subdivision	470	152 15	0 6 12	
	Dunolly Division	12,805	8,912 18	0 13 22·1	
	Korong Division	23,678	9,808 17	0 8 6·8	
	Redbank and St. Arnaud South Sub- divisions	958	1,026 0	1 1 8·1	
	St. Arnaud North Subdivision	7,292	4,593 8	0 12 14·3	
	Totals	86,158	47,051 12	0 10 22·1	
CASTLEMAINE.	Castlemaine Division	24,844	11,053 4	0 8 21·5	
	Fryer's Creek Subdivision	9,961	3,364 13	0 6 18·1	
	Hepburn Division	42,365	22,825 11	0 10 18·6	
	Taradale Subdivision	4,973	2,867 7	0 11 12·7	
	Maldon Division	32,942	34,748 3	1 1 2·3	
	St. Andrew's Division	1,499	2,488 1	1 13 4·2	
	Blue Mountain North Subdivision	1,090	358 13	0 6 13·9	
	Totals	117,674	77,705 12	0 13 4·9	
ARARAT.	Ararat Division	8,896	8,458 3	0 19 0·2	
	Pleasant Creek Division	30,716½	18,624 4	0 12 3	
	Raglan Division ... ..	...	...	...
	Barkly Division	32	26 12	0 16 15	
	Totals	39,644½	27,108 19	0 13 16·7	

No. 20.

AVERAGES.

SUMMARY.—AVERAGE YIELD of GOLD from certain Parcels of QUARTZ-TAILINGS, CEMENT, MULLOCK, &c., crushed in 1865 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	Tons Crushed.	Total Produce.	Average Yield per Ton.
		oz. dwts.	oz. dwts. grs.
Ballarat District	16,618	1,850 11	0 2 5 $\frac{1}{2}$
Beechworth District	73 $\frac{1}{3}$	19 18	0 5 10 $\frac{1}{6}$
Sandhurst District	97,193	18,328 17	0 3 18 $\frac{1}{2}$
Maryborough District	26,069	8,370 8	0 6 10 $\frac{3}{16}$
Castlemaine District	35,771 $\frac{1}{2}$	13,153 10	0 7 8 $\frac{1}{2}$
Ararat District	20,697	4,091 15	0 3 22 $\frac{1}{10}$
Totals	196,421 $\frac{1}{3}$	45,814 19	0 4 16

NOTE.—During 1864-5, 453,199 tons 16 cwt. of Quartz-tailings, &c., were crushed, and yielded 103,419 ozs. 7 dwts. of gold, being a average of 4 dwts. 13 $\frac{5}{8}$ grs. to the ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain Parcels of QUARTZ-TAILINGS, CEMENT, MULLOCK, &c., crushed in 1865 in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
			oz. dwts.	oz. dwts. grs.	
BALLARAT.	Number One Division ... ..	...	...	...
	Number Two Division	5,000	250 0	0 0 14 $\frac{2}{3}$	
	Number Three Division	5,493	183 7	0 0 16 $\frac{1}{16}$	
	Number Four Division	568	390 0	0 13 17 $\frac{1}{4}$	
	Buninyong Division ... ..	...	...	...
	Smythesdale Division	40	0 10 $\frac{1}{2}$	0 0 6 $\frac{3}{10}$	
	Creswick Division	4,093	734 19 $\frac{1}{2}$	0 3 14 $\frac{19}{103}$	
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision ... ..	...	...	...
	Blackwood Subdivision	1,424	291 14	0 4 2 $\frac{5}{17}$	
	Blue Mountain South Subdivision ... ..	...	...	...
	Totals	16,618	1,850 11	0 2 5 $\frac{1}{2}$	

TABLE showing the AVERAGE YIELD OF GOLD, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
BEECHWORTH.	Beechworth Subdivision	73 $\frac{1}{8}$	oz. dwts. 19 18	oz. dwts. grs. 0 5 10 $\frac{1}{2}$	None crushed.
	Stanley Subdivision				
	Yackandandah Subdivision				
	Sandy Creek Subdivision				
	Indigo Division				
	Buckland Division				
	Crooked River Subdivision				
	Jordan North and part of Omeo Sub- divisions				
	Jordan South Subdivision				
	Omeo Central Subdivision				
	Snowy Creek Subdivision				
	Totals	73 $\frac{1}{8}$	19 18	0 5 10 $\frac{1}{2}$	
SANDHURST.	Kangaroo Flat Subdivision	None crushed.
	Eaglehawk Subdivision	88,999	16,894 9	0 3 19 $\frac{1}{2}$	
	Kilmore Division	1,040	130 0	0 2 12	
	Heathcote Division, and Waranga } South Subdivision	15	10 0	0 13 8	
	Waranga North Subdivision	1,747	337 5	0 3 20 $\frac{1}{4}$	
	Raywood Division	5,392	957 3	0 3 13 $\frac{1}{2}$	
	Totals	97,193	18,328 17	0 3 18 $\frac{1}{2}$	
MARYBOROUGH.	Maryborough Division	4,760	3,173 10	0 13 0 $\frac{1}{2}$	
	Amherst Division	1,539	495 15	0 6 10 $\frac{1}{4}$	
	Avoca Subdivision	2,160	378 10	0 3 12 $\frac{1}{2}$	
	Dunolly Division	11,000	2,547 15	0 4 15 $\frac{1}{2}$	
	Korong Division	2,945	551 6	0 3 17 $\frac{1}{2}$	
	Redbank and St. Arnaud South Sub- divisions	11	4 7	0 7 21 $\frac{1}{4}$	
	St. Arnaud North Subdivision	3,654	1,219 5	0 6 16 $\frac{1}{2}$	
	Totals	26,069	8,370 8	0 6 10 $\frac{3}{8}$	
CASTLEMAINE.	Castlemaine Division	285	34 12	0 2 10 $\frac{3}{4}$	None crushed.
	Fryer's Creek Subdivision	18,517	8,411 0	0 9 2 $\frac{1}{37}$	
	Hepburn Division	6,344	3,114 0	0 9 19 $\frac{1}{21}$	
	Taradale Subdivision	4,661	755 3	0 3 5 $\frac{1}{2}$	
	Maldon Division	5,822	828 1	0 2 20 $\frac{3}{26}$	
	St. Andrew's Division	142 $\frac{1}{2}$	10 14	0 1 12 $\frac{1}{3}$	
	Blue Mountain North Subdivision ... ..	...	...	...
	Totals	35,771 $\frac{1}{2}$	13,153 10	0 7 8 $\frac{1}{2}$	
ARARAT.	Ararat Division	600	120 0	0 4 0	
	Pleasant Creek Division	18,317	3,492 5	0 3 19 $\frac{1}{2}$	
	Raglan Division	20	65 0	3 5 0	
	Barkly Division	1,760	414 10	0 4 17 $\frac{1}{22}$	
	Totals	20,697	4,091 15	0 3 22 $\frac{1}{10}$	

No. 22.

SUMMARY.

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ending 31st December, 1865.

MINING DISTRICTS.	From	To
	£ s. d.	£ s. d.
Ballarat District	0 2 6	0 11 0
Beechworth District	0 7 6	1 10 0
Sandhurst District	0 6 0	1 0 0
Maryborough District	0 5 6	0 15 0
Castlemaine District	0 4 0	1 0 0
Ararat District	0 8 0	0 15 0
Lowest and highest prices ...	0 2 6	1 10 0

No. 23.

TABLE showing the PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT during the Quarter ending 31st December, 1865.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BALLARAT.	Number One Division ... ..	...	...	None crushed.
	Number Two Division	0 6 0	0 6 0	
	Number Three Division	0 10 0	0 11 0	
	Number Four Division ... ..	...	...	None crushed.
	Buninyong Division	0 10 0	0 10 0	
	Smythesdale Division ... ..	...	...	None crushed.
	Creswick Division	0 9 0	0 10 0	
	Gordon Subdivision ... ..	...	...	None crushed.
	Steiglitz Subdivision	0 2 6	0 10 6	
	Blackwood Subdivision	0 6 0	0 8 0	
	Blue Mountain South Subdivision ... ..	...	...	None crushed.
	Lowest and highest prices ...	0 2 6	0 11 0	

TABLE showing the PRICES charged per Ton for CRUSHING QUARTZ and CEMENT, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BEECHWORTH.	Beechworth Subdivision	0 10 0	0 15 0	{ Water-power, 10s.; steam-power, 15s.
	Stanley Subdivision	0 15 0	0 15 0	
	Yackandandah Subdivision	0 15 0	0 15 0	None crushed.
	Sandy Creek Subdivision ... ..	...	...
	Indigo Division	0 10 0	1 0 0	
	Buckland Division	0 7 6	0 15 0	
	Crooked River Subdivision	1 0 0	1 0 0	None crushed.
	Jordan North and part of Omeo Subdivisions ...	1 5 0	1 10 0	
	Jordan South Subdivision	1 5 0	1 10 0	
	Omeo Central Subdivision ... ..	...	...
	Snowy Creek Subdivision	None crushed.
	Lowest and highest prices ...	0 7 6	1 10 0	
SANDHURST.	Kangaroo Flat Subdivision	0 6 0	0 8 0	
	Eaglehawk Subdivision	0 6 0	0 8 0	
	Kilmore Division	0 12 6	1 0 0	
	Heathcote Division, and Waranga South Sub- division... ..	0 8 0	0 10 0	
	Waranga North Subdivision	0 8 6	0 15 0	
	Raywood Division	0 10 0	0 10 0	
	Lowest and highest prices ...	0 6 0	1 0 0	
MARYBOROUGH.	Maryborough Division	0 8 0	0 12 0	
	Amherst Division	0 9 0	0 15 0	
	Avoca Subdivision	0 9 0	0 10 0	
	Dunolly Division	0 7 6	0 12 6	
	Korong Division	0 5 6	0 10 0	
	Redbank and St. Arnaud South Subdivisions ...	0 10 0	0 12 6	
	St. Arnaud North Subdivision	0 8 0	0 11 0	
	Lowest and highest prices ...	0 5 6	0 15 0	
CASTLEMAINE.	Castlemaine Division	0 4 6	0 10 0	
	Fryer's Creek Subdivision	0 6 0	0 10 0	
	Hepburn Division	0 4 0	0 8 0	
	Taradale Subdivision	0 8 0	0 10 0	
	Maldon Division	0 10 0	1 0 0	
	St. Andrew's Division	0 13 0	1 0 0	
	Blue Mountain North Subdivision	0 6 9	0 7 6	
	Lowest and highest prices ...	0 4 0	1 0 0	
ARARAT.	Ararat Division	0 9 0	0 10 0	
	Pleasant Creek Division	0 8 0	0 12 0	
	Raglan Division ... ..	...	...
	Barkly Division	0 15 0	0 15 0	
	Lowest and highest prices ...	0 8 0	0 15 0	

No. 24.

SUMMARY.

PRICE of GOLD per ounce in the several MINING DISTRICTS during the Quarter ending 31st December, 1865.

MINING DISTRICTS.	From	To
	£ s. d.	£ s. d.
Ballarat District	3 15 0	4 2 6
Beechworth District	3 3 0	4 2 0
Sandhurst District	3 15 0	4 0 6
Maryborough District... ..	2 17 0	4 1 6
Castlemaine District	3 14 0	3 19 6
Ararat District	3 15 0	3 18 6
Lowest and highest prices ...	2 17 0	4 2 0

No. 25.

TABLE showing the PRICE of GOLD per ounce in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT during the Quarter ending 31st December, 1865.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BALLARAT.	Number One Division	4 0 0	4 1 6	
	Number Two Division	3 19 6	4 1 0	
	Number Three Division	4 0 6	4 1 6	
	Number Four Division	4 1 0	4 2 0	
	Buninyong Division	4 0 0	4 1 0	
	Smythesdale Division	3 19 6	4 0 0	
	Creswick Division	3 19 3	3 19 9	
	Gordon Subdivision	3 18 6	4 1 6	
	Steiglitz Subdivision	3 15 0	3 18 0	
	Blackwood Subdivision	3 16 0	3 17 0	
	Blue Mountain South Subdivision	3 16 9	3 17 3	
	Lowest and highest prices ...	3 15 0	4 1 6	

TABLE showing the PRICE of GOLD, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	From	To	Remarks.
		£ s. d.	£ s. d.	
BEECHWORTH.	Beechworth Subdivision	3 19 0	3 19 0	
	Stanley Subdivision	3 19 0	3 19 0	
	Yackandandah Subdivision	3 19 0	3 19 6	
	Sandy Creek Subdivision	3 11 6	3 12 0	
	Indigo Division	3 19 0	3 19 3	
	Buckland Division	3 17 0	3 17 6	
	Crooked River Subdivision	3 17 6	3 18 0	
	Jordan North and part of Omeo Subdivisions ...	3 3 0	3 19 0	
	Jordan South Subdivision	3 14 6	4 2 0	
	Omeo Central Subdivision	3 8 0	3 17 6	
	Snowy Creek Subdivision	3 5 0	3 12 0	
	Lowest and highest prices ...	3 3 0	4 2 0	
SANDHURST.	Kangaroo Flat Subdivision	3 17 0	3 17 0	
	Eaglehawk Subdivision	3 17 0	3 17 9	
	Kilmore Division	3 15 6	3 16 0	
	Heathcote Division, and Waranga South Sub- division	3 19 9	3 19 9	
	Waranga North Subdivision	3 15 0	4 0 6	
	Raywood Division	3 17 6	3 18 6	
	Lowest and highest prices ...	3 15 0	4 0 6	
MARYBOROUGH.	Maryborough Division	3 18 6	4 1 6	
	Amherst Division	3 18 6	4 1 0	
	Avoca Subdivision	3 17 6	4 0 0	
	Dunolly Division	3 19 6	4 1 0	
	Korong Division	3 17 6	3 18 0	
	Redbank and St. Arnaud South Subdivisions ...	3 17 0	3 19 6	
	St. Arnaud North Subdivision	2 17 0	4 1 6	
	Lowest and highest prices ...	2 17 0	4 1 6	
CASTLEMAINE.	Castlemaine Division	3 14 0	3 16 6	
	Fryer's Creek Subdivision	3 15 0	3 17 6	
	Hepburn Division	3 16 3	3 17 0	
	Taradale Subdivision	3 15 6	3 18 0	
	Maldon Division	3 15 3	3 19 6	
	St. Andrew's Division	3 15 0	3 16 0	
	Blue Mountain North Subdivision	3 16 9	3 17 3	
	Lowest and highest prices ...	3 14 0	3 19 6	
ARARAT.	Ararat Division	3 17 6	3 17 9	
	Pleasant Creek Division	3 15 0	3 17 0	
	Raglan Division	3 18 3	3 18 6	
	Barkly Division	3 17 0	3 17 9	
	Lowest and highest prices ...	3 15 0	3 18 6	

No. 26.

SUMMARY.

LENGTH of WATER RACES constructed and their APPROXIMATE COST in the several MINING DISTRICTS, to 31st December, 1865.

MINING DISTRICTS.				Length of Races.		Approximate Cost.
				Miles.	Chains.	£
Ballarat District	...	...	...	395	4	36,375
Beechworth District	...	...	...	1,084	40	206,047
Sandhurst District...	...	...	...	32	60	2,184
Maryborough District	...	...	...	147	8	7,326
Castlemaine District	...	...	...	191	34	11,319
Ararat District	...	...	...	85	40	3,920
Totals	...	...	...	1,936	26	267,171

No. 27.

TABLE showing the LENGTH of WATER RACES constructed and their APPROXIMATE COST in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, to 31st December, 1865.

MINING DISTRICT.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Length of Races.		Approximate Cost.	Remarks.
					Miles.	Chains.	£	
BALLARAT.	Number One Division	...	...	...	...	...	...	No races constructed.
	Number Two Division	...	...	...	101	64	2,718	
	Number Three Division	...	...	...	8	0	208	
	Number Four Division	...	...	...	...	...	...	No races constructed.
	Buninyong Division	...	...	...	11	0	400	
	Smythesdale Division	...	...	...	9	60	709	
	Creswick Division	...	...	...	107	60	11,378	
	Gordon Subdivision	...	...	...	...	...	...	No races reported.
	Steiglitz Subdivision	...	...	...	50	0	7,000	
	Blackwood Subdivision	...	...	...	105	60	13,762	
BEECHWORTH.	Blue Mountain South Subdivision	...	...	...	1	0	200	
	Totals	...	...	...	395	4	36,375	
	Beechworth Subdivision	...	...	...	124	40	47,180	
	Stanley Subdivision	...	...	...	122	20	53,544	
	Yackandandah Subdivision	...	...	...	198	40	40,970	
	Sandy Creek Subdivision	...	...	...	26	0	3,000	
	Indigo Division	...	...	...	12	0	800	
	Buckland Division	...	...	...	172	20	10,670	
	Crooked River Subdivision	...	...	...	20	0	2,618	
	Jordan North and part of Omeo Subdivisions	...	...	...	121	0	18,560	
	Jordan South Subdivision	...	...	...	1	0	170	
	Omeo Central Subdivision	...	...	...	147	0	17,335	
	Snowy Creek Subdivision	...	...	...	140	0	11,200	
	Totals	...	...	...	1,084	40	206,047	

TABLE showing the LENGTH of WATER RACES, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Length of Races.		Approximate Cost.	Remarks.
		Miles.	Chains.		
SANDHURST.	Kangaroo Flat Subdivision ... ..	...	...	...	No races constructed.
	Eaglehawk Subdivision ... ..	...	...	...	No races constructed.
	Kilmore Division	20	0	1,114	
	Heathcote Division and Waranga South Sub- division	9	60	870	
	Waranga North Subdivision ... ..	...	...	...	No races constructed.
	Raywood Division	3	0	200	
	Totals	32	60	2,184	
MARYBOROUGH.	Maryborough Division ... ..	...	...	...	No races constructed.
	Amherst Division	92	0	4,990	
	Avoca Subdivision	43	40	1,245	
	Dunolly Division ... ..	...	...	...	No races constructed.
	Korong Division ... ..	...	...	...	No races constructed.
	Redbank and St. Arnaud South Subdivisions ... ..	...	...	...	No races constructed.
	St. Arnaud North Subdivision	11	48	1,091	
	Totals	147	8	7,326	
CASTLEMAINE.	Castlemaine Division ... ..	...	...	...	No races constructed.
	Fryer's Creek Subdivision	3	0	535	
	Hepburn Division	157	40	8,745	
	Taradale Subdivision	2	4	170	
	Maldon Division	0	60	60	
	St. Andrew's Division	20	70	1,489	
	Blue Mountain North Subdivision	8	20	320	
	Totals	191	34	11,319	
ARARAT.	Ararat Division ... ..	...	...	...	No races in use.
	Pleasant Creek Division	14	0	500	
	Raglan Division	70	0	1,900	
	Barkly Division	1	40	1,520	
	Totals	85	40	3,920	

No. 28.

QUANTITY OF GOLD EXPORTED during the Year 1865, as returned by the Customs Department.

1,543,801 ounces.

NOTE.—In addition to the above, 216,046 ozs. of New Zealand Gold have been shipped from this Colony during the year.

No. 29.

RETURN showing approximately the GOLD OBTAINED FROM QUARTZ VEINS AND ALLUVIAL WORKINGS during the Year 1865.

					Oz.
From Quartz Veins ...	...	...	...	...	450,000
From Alluvial Workings ...	...	...	...	...	1,093,801
Total Gold exported	...	...	...	...	1,543,801

NOTE.—The above results are only rough approximations. The Mining Surveyors and Registrars have given approximate returns of the gold obtained severally from quartz veins and alluviums in their divisions; but as the Surveyors and Registrars could at best furnish no more than estimates, derived from returns made by the banks and gold buyers, and from their own knowledge of the nature of the workings in their districts, the figures must not be considered as correct.

No. 30.

RETURN of the NUMBER OF GOLD MINING LEASES in force on the 31st December, 1865, together with the EXTENT OF GROUND LEASED and the PROPOSED CAPITAL to be employed in working the said ground.

MINING DISTRICTS.	Number of Leases.	Extent.			Total Capital Proposed.
		A.	R.	P.	
Ballarat District ...	88	2,890	3	14	£ 422,400
Beechworth District ...	300	5,326	3	20	1,384,200
Sandhurst District ...	318	2,303	0	28	650,190
Maryborough District ...	228	3,495	0	24	612,850
Castlemaine District ...	85	1,095	3	14	414,980
Ararat District ...	24	667	1	37	57,250
Totals ...	1,043	15,779	1	17	3,541,870

NOTE.—The total number of gold mining leases granted since the commencement is 1,815, containing 27,737a. 3r. 24p. Many leases have expired, have been forfeited, &c., during 1865. The above table shows those only which were actually in force on the 31st December, 1865.

No. 31.

THE NUMBER OF WATER RIGHT LICENSES FOR GOLD MINING PURPOSES issued during the Year 1865 is as follows:—

Number.	Area of Races.			Length of Races.		Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.			Capacity of Reservoirs.	Capital proposed to be invested.	Annual Rent.
	A.	R.	P.	Miles.	Chains.	galls.	A.	R.	P.	galls.	£	£ s. d.
49	680	1	21	172	43	62,829,300	257	0	37	69,376,000	75,907	288 10 0

THE NUMBER of WATER RIGHT LICENSES under "The Land Act 1862," issued during the Year 1865, is as follows:—

Number.	Area of Races.			Length of Races.		Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.			Capacity of Reservoirs.	Capital proposed to be invested.	Annual Rent.
	A.	R.	P.	Miles.	Chains.	galls.	A.	R.	P.	galls.	£	£ s. d.
2	3	1	4	0	65	540,000	7	3	1	1,035,000	1,000	7 0 0

No. 32.

SUMMARY.

AREA of LAND held as CLAIMS under the District Bye-laws, and of CLAIMS protected by REGISTRATION or EXEMPTION CERTIFICATES, in the several MINING DISTRICTS on the 31st December, 1865.

MINING DISTRICTS.					Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of ground not being worked being protected by Certificate.		
					A.	E.	P.	A.	R.	P.
Ballarat District	...	...	...	...	32,747	0	0	6,636	2	34
Beechworth District	...	...	...	...	37,719	1	36	11,244	0	0
Sandhurst District	...	...	...	...	4,041	0	0	938	1	0
Maryborough District	...	...	...	...	1,833	2	5	204	2	29
Castlemaine District	...	...	...	...	31,172	1	34	16,587	1	32
Ararat District	...	...	...	...	11,243	3	12	4,120	2	0
Totals	...	...	...	...	118,757	1	7	39,731	2	15

No. 33.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and of CLAIMS not being worked being protected by REGISTRATION or by EXEMPTION CERTIFICATES, in the several DIVISIONS and SUBDIVISIONS on the 31st December, 1865.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked being protected by Certificates.		
BALLARAT ...	{	Number One Division	7,022	0	0	953	0	0		
		Number Two Division	800	0	0	260	0	0		
		Number Three Division	240	0	0	94	0	0		
		Number Four Division... ..	9,852	0	0	2,736	0	0		
		Buninyong Division	3,369	0	0	550	0	0		
		Smythesdale Division	3,651	0	0	390	0	0		
		Creswick Division	2,377	0	0	920	0	0		
		Gordon Subdivision	106	0	0	91	0	0		
		Steiglitz Subdivision	3,840	0	0	92	1	27		
		Blackwood Subdivision... ..	850	0	0	70	1	7		
		Blue Mountain South Subdivision	640	0	0	480	0	0		
Totals			32,747	0	0	6,636	2	34		

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, &c.—*continued.*

MINING DISTRICT.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked being protected by Certificate.		
					A.	R.	P.	A.	R.	P.
BEECHWORTH	Beechworth Subdivision	...	...	...	2,020	0	0	380	0	0
	Stanley Subdivision	...	...	...	380	0	0	60	0	0
	Yackandandah Subdivision	...	...	...	2,000	0	0	1,000	0	0
	Sandy Creek Subdivision	...	...	...	105	0	0	...		
	Indigo Division	...	...	...	9,300	0	0	2,660	0	0
	Buckland Division	...	...	...	5,583	0	0	3,981	0	0
	Crooked River Subdivision	...	...	...	13,440	0	0	2,560	0	0
	Jordan North and part of Omeo Subdivisions	...	...	...	1,560	0	0	431	0	0
	Jordan South Subdivision	...	...	...	451	1	36	8	0	0
	Omeo Central Subdivision	...	...	...	960	0	0	84	0	0
	Snowy Creek Subdivision	...	...	...	1,920	0	0	80	0	0
	Totals	...	...	...	37,719	1	36	11,244	0	0
SANDHURST ...	Kangaroo Flat Subdivision	...	...	...	1,830	0	0	523	0	0
	Eaglehawk Subdivision	...	...	...	350	0	0	100	0	0
	Kilmore Division	...	...	...	293	0	0	126	0	0
	Heathcote Division, and Waranga South Subdivision	...	...	...	435	0	0	30	1	0
	Waranga North Subdivision	...	...	...	396	0	0	94	0	0
	Raywood Division	...	...	...	737	0	0	65	0	0
	Totals	...	...	...	4,041	0	0	938	1	0
MARYBOROUGH	Maryborough Division	...	...	...	560	0	0	61	3	21
	Amherst Division	...	...	...	220	0	0	34	1	11
	Avoca Subdivision	...	...	...	92	0	0	2	0	0
	Dunolly Division	...	...	...	540	0	0	15	3	0
	Korong Division	...	...	...	210	0	0	37	0	0
	Redbank and St. Arnaud South Subdivisions	...	...	...	118	0	0	8	0	0
	St. Arnaud North Subdivision	...	...	...	93	2	5	45	2	37
	Totals	...	...	...	1,833	2	5	204	2	29
CASTLEMAINE	Castlemaine Division	...	...	...	1,513	3	28	577	2	25
	Fryer's Creek Subdivision	...	...	...	1,269	1	36	227	0	19
	Hepburn Division	...	...	...	13,813	2	10	6,780	1	28
	Taradale Subdivision	...	...	...	10,094	1	0	6,750	0	0
	Maldon Division	...	...	...	988	0	0	111	2	0
	St. Andrew's Division	...	...	...	293	1	0	60	3	0
	Blue Mountain North Subdivision	...	...	...	3,200	0	0	2,060	0	0
	Totals	...	...	...	31,172	1	34	16,587	1	32
ARARAT	Ararat Division	...	...	...	10,514	0	0	3,941	0	0
	Pleasant Creek Division	...	...	...	400	0	0	178	0	0
	Raglan Division	...	...	...	154	3	12	1	2	0
	Barkly Division	...	...	...	175	0	0	...		
	Totals	...	...	...	11,243	3	12	4,120	2	0

No. 34.

SUMMARY.

ESTIMATED VALUE of the CLAIMS in the several MINING DISTRICTS on the 31st December, 1865.

MINING DISTRICTS.				ESTIMATED VALUE OF CLAIMS.
				£
Ballarat District	...	...	...	2,392,751
Beechworth District	...	...	...	1,875,267
Sandhurst District	...	...	...	2,016,806
Maryborough District	...	...	...	632,604
Castlemaine District	...	...	...	1,333,146
Ararat District	...	...	...	248,350
Total	...	...	...	£8,498,924

NOTE.—The instructions issued to the Mining Surveyors and Registrars, for the purpose of guiding them in forming an estimate of the value of claims in their divisions, were to the effect that they should consult the quotations on the share lists in cases where they would apply; and, in cases where the claims were not included in any share list, that they should endeavor, by their local experience, and by enquiries, to arrive at as fair an estimate as possible. It is believed that they have carefully followed their instructions.

No. 35.

TABLE showing the ESTIMATED VALUE of the MINING CLAIMS in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT on the 31st of December, 1865.

MINING DISTRICTS.			MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.			VALUE OF CLAIMS.
						£
BALLARAT	...	...	Number One Division	...	...	739,440
			Number Two Division	...	...	54,000
			Number Three Division	...	...	45,030
			Number Four Division	...	...	439,548
			Buninyong Division	...	...	350,000
			Smythesdale Division	...	...	291,015
			Creswick Division	...	...	405,338
			Gordon Subdivision	...	...	9,700
			Steiglitz Subdivision	...	...	16,280
			Blackwood Subdivision	...	...	41,400
			Blue Mountain South Subdivision	...	...	1,000
			Total	...	...	£2,392,751

TABLE showing the ESTIMATED VALUE of MINING CLAIMS, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	VALUE OF CLAIMS.
BEECHWORTH ...	Beechworth Subdivision	£ 350,100
	Stanley Subdivision	36,485
	Yackandandah Subdivision	60,000
	Sandy Creek Subdivision... ..	2,000
	Indigo Division	110,822
	Buckland Division	61,400
	Crooked River Subdivision	101,040
	Jordan North and part of Omeo Subdivisions	783,170
	Jordan South Subdivision	357,250
	Omeo Subdivision	5,500
	Snowy Creek Subdivision... ..	7,500
	Total	1,875,267
SANDHURST ...	Kangaroo Flat Subdivision	940,806
	Eaglehawk Subdivision	855,000
	Kilmore Division	101,900
	Heathcote Division, and Waranga South } Subdivision	60,000
	Waranga North Subdivision	36,700
	Raywood Division	22,400
	Total	2,016,806
MARYBOROUGH ...	Maryborough Division	45,900
	Amherst Division	68,614
	Avoca Subdivision	47,500
	Dunolly Division	284,000*
	Korong Division... ..	76,840
	Redbank and St. Arnaud South Subdivisions	18,000
	St. Arnaud North Subdivision	91,750
	Total	632,604
CASTLEMAINE ...	Castlemaine Division	58,528
	Fryer's Creek Subdivision	95,025
	Hepburn Division	451,048
	Taradale Subdivision	334,090
	Maldon Division	342,455*
	St. Andrew's Division	2,000
	Blue Mountain North Subdivision... ..	50,000
	Total	1,333,146
ARARAT ...	Ararat Division	68,750
	Pleasant Creek Division	156,600*
	Raglan Division	9,000
	Barkly Division	14,000
	Total	248,350

* These are apparently over-estimated.

No. 36.

TABLE showing the NUMBER of GOLD MINING LEASES issued in each year for the several MINING DISTRICTS from 1859 to 1865, inclusive.

MINING DISTRICT.	1859.	1860.	1861.	1862.	1863.	1864.	1865.	Total.
Ballarat District ...	15	100	49	17	14	25	45	265
Beechworth District ...	...	1	5	1	...	24	324	355
Sandhurst District ...	3	214	59	24	31	73	133	537
Maryborough District ...	1	59	24	28	35	100	153	400
Castlemaine District ...	3	48	32	19	15	28	44	189
Ararat District ...	...	...	9	6	14	20	20	69
Totals ...	22	422	178	95	109	270	719	1,815

No. 37.

RETURN of MINERS' RIGHTS and CHINESE PROTECTION TICKETS issued in VICTORIA from 1st June, 1855, to 31st December, 1865.

PERIOD OF ISSUE.	Miners' Rights. £l.	Chinese Tickets.		
		£l.	£2.	£4.
1st June to 31st December, 1855 ...	50,899	11,101	...	...
1st January to 31st December, 1856 ...	54,655	12,199	...	...
1st January to 31st December, 1857 ...	53,822	22,341	...	...
1st January to 31st December, 1858 ...	49,314	28,179	...	...
1st January to 31st December, 1859 ...	48,152	55,810	...	119
1st January to 31st December, 1860 ...	44,571	31,368	1	1
1st January to 31st December, 1861 ...	36,640	20,058	...	1
1st January to 31st December, 1862 ...	35,078	906	...	1
1st January to 31st December, 1863 ...	28,564	...	...	...
1st January to 31st December, 1864 ...	28,718	...	...	...
1st January to 31st December, 1865 ...	24,495	...	...	...

No. 38.

RETURN of the QUANTITIES of GUNPOWDER issued, &c., on the several GOLD FIELDS, during the Year 1865.

MINING DISTRICTS.	Quantity in Stock at the commencement of the year.				Quantity Issued during the year.				Quantity in Stock at the end of the year.			
	Tons.	cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.
Ballarat District ...	2	2	2	21	30	3	0	5	7	19	2	6
Beechworth District ...	...	...	...	...	6	12	2	10	8	6	1	5
Sandhurst District ...	3	18	0	14	57	4	2	16	10	18	2	3
Maryborough District ...	0	15	1	26	9	1	1	2	6	11	2	17
Castlemaine District ...	1	14	0	17	21	8	2	8	6	15	2	24
Ararat District ...	0	14	2	1	7	3	3	25	3	17	0	1
Totals ...	9	4	3	23	131	14	0	10	44	8	3	0

MINERALS OTHER THAN GOLD.

No. 39.

RETURN of the NUMBER OF LEASES in force on the 31st December, 1865, for the purpose of Mining for METALS AND MINERALS OTHER THAN GOLD.

NAMES OF METALS AND MINERALS.	Number of Leases.	Area.			Total Capital proposed to be invested.
		A.	R.	P.	
Antimony	21	265	0	10	£ 33,950
Coal	3	1,598	2	30	60,000
Copper	1	50	0	0	3,000
Kaolin and other clays	2	24	2	18	2,600
Lignite	4	669	0	24	3,200
Silver	10	763	0	23	87,300
Slate and Flagstone	7	379	2	24	20,900
Totals	48	3,750	1	9	210,950

No. 40.

RETURN showing the NUMBER OF LICENSES TO SEARCH FOR METALS OR MINERALS OTHER THAN GOLD issued during the Year 1865.

NAMES OF METALS OR MINERALS.	Number of Licenses.	Extent of Ground held under License.		
		A.	R.	P.
Antimony	1	42	0	0
Bismuth	2	1,280	0	0
Carbonate of Magnesia or Magnesite	3	340	0	0
Coal	10	5,367	3	11
Copper... ..	9	5,760	0	0
Flags, Roofing Slate, &c....	5	2,090	0	0
Limestone	1	58	0	18
Totals	31	14,937	3	29.

NOTE.—The following “Notice to Applicants for Licenses to search for Metals or Minerals other than Gold, under the Order in Council of 15th October, 1862,” was published in the *Government Gazette* of 2nd December, 1864 :—

Referring to the third section of the regulations under *The Land Act*, 1862, respecting licenses to search for any metal or mineral except gold, the following scale of fees payable for licenses issued under the said regulations is published for general information :—

For an area exceeding 320 acres but not exceeding 640 acres	..	..	..	£	s.	d.
160	..	320	..	10	0	0
80	..	160	..	5	0	0
64	..	80	..	2	10	0
And for any area not exceeding 64 acres	..	..	..	1	5	0
	..	..	..	1	0	0

No. 41.

TABLE showing the NUMBER OF MINERAL LEASES issued for the several MINING DISTRICTS for each Year from 1861 to 1865, inclusive.

MINING DISTRICTS.	1861.	1862.	1863.	1864.	1865.	Total.
Ballarat ... ..	...	1	5	2	1	9
Sandhurst	1	...	26	5	...	32
Maryborough ... ..	...	1	17	13	4	35
Castlemaine	2	2	11	...	6	21
Ararat ... ..	...	...	4	...	1	5
Totals	3	4	63	20	12	102

NOTE.—No Mineral Leases had been issued for the Beechworth Mining District up to the end of 1865.

METALLIFEROUS MINERALS, COAL AND LIGNITE, CLAYS, SLATES, AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

The greater part of the silver which has been melted has been obtained from the chlorobromide which occurs at St. Arnaud, with iron pyrites, galena, ores of copper, and native copper, cerusite, anglesite, mimetene, malachite, argentiferous galena, zinc blende, arseniate of iron, native sulphur, brown iron ore, ores of manganese, &c.

Native silver has been found also at St Arnaud, in small quantities.* Gold and silver alloys occur at Reedy Creek, a tributary of the Goulburn, and in many other quartz reefs on the gold fields. The ores of silver are found, it is said, at Pleasant Creek, and in other parts of the Ararat District.

No important discoveries of the ores of this metal have been reported to the Department during the past year.

Up to the 31st December, 1865, thirty-nine Leases of land had been granted for an aggregate area of 1,827 acres 13 perches, and of these twenty-nine have been declared forfeited for non-fulfilment of the covenants. There were, consequently, only ten leases in force on the above date, for an area of 763 acres 23 perches.

The lessees have had some difficulties to contend with ; but there is reason to believe that the working and reduction of these ores will prove remunerative. The drought has seriously interfered with the operations of the miners.

According to the returns received it appears that the following quantities have been raised and smelted :—

	Silver Ore.	Silver.	
	Tons.	Oz.	dwt.
Previously—Up to the 31st December, 1864 ...	4,480	6,786	4
From 1st January to 31st December, 1865	1,400	3,379	0
Totals ...	5,880	10,165	4

The following Statement of Exports has been received from the Customs Department :—

Year.	Silver Ore.		Silver.	
	Tons.	cwt.	Oz.	dwt.
1861	10	6	...	...
1864	...	...	4,207	15
1865	...	...	4,954	0
Totals ...	10	6	9,161	15

TIN.

Stream tin (*oxyd of tin*) occurs in many places in the Mining District of Beechworth, in the beds of the tributaries of the Yarra, the Thomson, and the La Trobe. It has been found also at Taradale and Strathbogie. It is believed that no veins have yet been discovered.

Locality: Woolshed Creek and all its tributaries, Beechworth.

The following information has been furnished by Mr. Warden Barnard, of Beechworth :—

Very considerable quantities of black sand or tin ore have been raised during the ten years previous to 1864, but it is impossible to form an estimate of the total number of tons.

About 120 tons of tin ore were raised during the year 1864.

Mr. Gaunt, the Warden at Beechworth, has reported that, during the year 1865, the quantity of tin ore raised in the Beechworth District was 150 tons, of which about 30 tons were smelted, yielding 74 per cent. of metal. The average price at Beechworth of the black sand is £45 per ton, and the market value in England £60 per ton.

* Vide Report on the "Gold and Silver bearing Reefs of St. Arnaud," by George F. Ulrich, Esquire, Field Geologist.

No leases of land for tin mining have yet been granted, but very important discoveries of tin oxyd have been made near the sources of the River Yarra; and four applications have been lodged for leases for an aggregate area of 1,000 acres. Fine samples of the ore, and of the tin smelted therefrom, were forwarded to the Exhibition in Dublin.

Great quantities of tin ore are found in some of the tributaries of the River Yarra, mixed with ilmenite, pleonaste, tourmaline, quartz, &c. Rutile has also been found in places where the tin ore occurs.

The following Statement of Exports has been obtained from the Customs Department:—

TIN ORE.		Tons.	cwt.
Previously—Up to 31st December, 1864	...	2,364	7
From 1st January to 31st December, 1865, "Black Sand"	...	16	8
		2,380	15

TIN.		
Previously—Up to 31st December, 1864, 160 ingots, say	...	4,800 lbs.
From 1st January to 31st December, 1865	...	3,360 „
		8,160 lbs.

PLATINUM.

Thirty ounces of this metal are mentioned in the Custom House returns as having been exported; but it is believed that it was not the produce of Victoria.

COPPER.

Native copper occurs at St. Arnaud, Specimen Gully, Castlemaine, and on the River Thomson, associated with other ores of copper. Blue and green carbonates of copper, and copper pyrites, occur in small quantities at Steiglitz, Castlemaine, Blue Mountains, Bendigo, St. Arnaud, Inglewood, Dunolly, Gipps Land, &c. Cuproplumbite is found at McIvor.

Though two leases of land had been granted for copper mining at Heathcote up to the 31st December, 1864, it does not appear from the returns furnished that any copper ore has been raised. One of the leases has been declared forfeited; the other is still in force.

The vein of copper found near the River Thomson, in Gipps Land, has been to some extent explored, and it is said that, in some places, it is fifteen feet thick. Sulphides, black oxide of copper, and native copper, have been obtained from this locality.

During the year 1865 nine licenses to search for the ores of copper, for an aggregate area of 5,760 acres, were granted, and some of the licensees have applied for leases, in order that, under a secure tenure, they may open up the mines, and ascertain the value of them. One of the licenses was for land at Stringer's Creek, which is distant about seven miles in a south-easterly direction from the copper mines on the River Thomson.

Twenty tons of copper ore are returned by the Customs Department as having been exported; but this was not the produce of Victoria.

BISMUTH.

Two searching licenses, each for 640 acres, have been granted for bismuth, which is said to occur at Wombat Creek, in the Mining Division of Omeo. Mr. Howitt, the Warden at Omeo, forwarded samples of the metal, and has promised to visit the locality and furnish a report.

MOLYBDENUM.

Molybdenite—*Sulphuret of Molybdenum*—occurs at Yackandandah in considerable quantities, and fine hexagonal plates have been brought to Melbourne.

No attempts have yet been made to work the vein.

ANTIMONY.

Sulphuret of antimony and oxyd of antimony are found at Heathcote,* Whroo, Anderson's Creek, Rutherglen, Maryborough, &c. Nearly all the antimony ores which have been raised have been obtained from the mines at Heathcote. A large proportion of gold is mixed with the antimony ores at Heathcote.

According to the returns received it appears that the following quantities have been raised:—

ANTIMONY ORE.		Tons	cwt.	lbs.
Previously—Up to 31st December, 1864	...	1,385	0	26
From 1st January to 31st December, 1865	...	729	0	0
		2,114	0	26

Previous to 1865, 682½ tons of mixed oxides, sulphides, quartz with gold, and refuse, were raised and crushed, for the purpose of extracting the gold only; and 8 tons 10 cwt. of crude antimony, and 5 tons of regulus, were reduced from ores smelted promiscuously as experiments.

During 1865 five tons of ore were smelted on the land leased by Messrs. Coster, Field, and Martin.

Ten lessees have failed to make returns for the past year; but there is reason to believe they have not raised any ore.

* Mr. Dardanelli has been in communication with Messrs. Johnson, Matthey and Co., assayers, &c., of Hatton Garden, London, in reference to this ore. He forwarded a sample, and it was assayed with the following results:—

Metallic Antimony	..	..	..	54·35 per cent.
Gold..	..	..	..	8·175 ounces }
Silver	..	..	..	80·050 ounces }

per ton of 20 cwt. of ore.

One searching license for forty-two acres at Blackwood was granted in 1865.

The following Statement of Exports has been obtained from the Customs Department:—

ANTIMONY ORE.

	Tons	cwt.
Previously—Up to 31st December, 1864	1,215	0
From 1st January to 31st December, 1865	153	5
	<u>1,368</u>	<u>5</u>

Interesting specimens of oxide and sulphide of antimony have been forwarded from Whroo by Mr. H. B. Nicholas, Mining Surveyor; and Mr. R. M. Serjeant, of Ballarat, obtained a good many rounded specimens of sulphide of antimony from the gutter of the Koh-i-noor claim at Ballarat. The last-named contained a little lead.

MERCURY.

One searching license for quicksilver was issued in 1864, but no discoveries have yet been reported.

COAL AND LIGNITE.

COAL.

The area of the coal-bearing rocks is about 3,000 square miles, or 1,920,000 acres. These rocks occur in Gipps Land, in the counties of Grant, Bourke, Mornington, and Polwarth, and in the Portland Bay District.

Four leases of land have been granted for coal mining purposes, for an aggregate area of 1,827a. 0r. 20p.

The localities are near the sea coast, extending from Cape Paterson to Griffith's Point, in the County of Mornington. Three leases were in force on the 31st December, 1865, for an aggregate area of 1,598a. 2r. 30p.

According to the returns received from the lessees it appears that the following quantities have been raised:—

COAL.

	Tons.
Previously—Up to 31st December, 1864	1,933
From 1st January to 31st December, 1865	...
	<u>1,933</u>

The New Griffith's Point Coal Company report that they have increased the depth of their bore to 830 feet, and that they have entered into a contract to put it down to 1,000 feet.

The lessee of the block lying to the west of Coal Creek states that he has not raised any coal during the year 1865; and the Victoria Coal Company, Cape Paterson, report that they have not raised coal since June, 1863.

The cost of transporting the coal to the place of shipment is very great; and this, no doubt, has interfered to prevent the proper exploration and working of the mines.

Ten searching licenses for coal were granted during the year 1865, for an area of 5,367a. 3r. 11p.; and three remained in force on the 31st December, for an aggregate area of 1,319a. 3r. 11p.: two of these were for blocks of land near Cape Paterson, and one at Geelong, where a bore has been put down to a great depth by the Newtown and Chilwell Coal Mining Company.

A discovery of coal shale has lately been made about 10 miles north-west of Traralgon, in Gipps Land, and an application has been lodged for a lease.*

The applicant has been good enough to furnish a copy of the report made by Mr. George Foord on the specimens submitted to him for examination.

It is as follows:—

[Copy.]

REPORT.

“Melbourne, 21st February, 1866.

“The Bank of Victoria.

“The mineral sample submitted for examination is a coal shale. It yields by destructive distillation—

“Volatile matter, consisting of coal gas, tar, and ammoniacal liquor ... 20·88
leaving a residue of—

A black, stony, non-cellular substance, which may be considered as a }	79·12
kind of coke, and which is comparable to the coke of Cannel coal }	
	<u>100·00</u>

This residue is very difficult of combustion, on account of its compact character, and the high percentage of mineral ash. The above 79·12 parts, when burnt, yield—

Carbon consumed by burning	29·37
Mineral ash	49·75
	<u>79·12</u>

* Since the above was in type, a report has been received from the Government Geologist, and it appears that the discovery is not important. The seam is very thin.

So that one-half of the mineral is combustible. The gas afforded by this mineral is of good illuminating quality, but small in proportion to the amount of shale employed in the experiment. A small sample of the mineral afforded at the rate of 2,100 cubic feet of gas per ton. This, it may be remarked, is but the fourth or fifth of what good coal will yield; but it is also to be remarked, that the quantity of gas afforded by a fuel depends on the temperature, and on other conditions. At a low temperature the gas products are diminished, and the tarry products proportionately increased; while, at a high temperature, the proportion of tar is decreased, that of the gas is increased, and its illuminating power diminished.

"The tar from this mineral is comparatively free from fetid sulphur and nitrogen compounds, and is, in that respect, nearer to the quality of wood tar than the ordinary tar of the gas works.

"The mineral ash has the general composition of an ordinary shale. It consists principally of silicic acid (silica), alumina, and oxides of iron; containing also small proportions of lime, magnesia-sodium, potassium, and lithium compounds. There is also a little gypsum (sulphate of lime) in this ash, but the mineral is remarkably free from iron pyrites.

"Comparing this mineral externally with the kerosene mineral of New South Wales, it may be pointed out that your mineral has the external appearance of a shale or slate, the New South Wales mineral having the aspect of an asphaltum. Your sample breaks always with a slaty fracture; the New South Wales sample breaks, on the contrary, like pitch or resin, with a fine conchoidal fracture, indicative of a high percentage of oil-yielding constituents.

"In reference to the question of the applicability of your mineral for the preparation of mineral naphthas, or hydro-carbon oils, it must be answered, that this mineral, distilled at a sombre red heat, will undoubtedly yield these products in the crude state, but in a lower percentage proportion than the Boghead mineral or the New South Wales mineral affords them. Your mineral would probably fall somewhat short of affording half the yield of the richer minerals mentioned; and in this return the constituent products might not yield as high a proportion of the lighter and more saleable oils as an equal bulk of crude kerosene oil would do. Whether this would prove remunerative is a question which locality, abundance, and accessibility of the mineral, and other such circumstances, must largely affect. The nature, proportion, and costs of the products would require a special series of experiments, performed, say on a ton or two of the material, in successive charges of one hundredweight each.

"It would probably be advisable to obtain the opinion of a geologist as to boring experiments, with a view of finding other seams, before entertaining or discarding the question of operating on this mineral for economic purposes.

(Signed)

"GEORGE FOORD,
"Chemist and Assayer."

LIGNITE.

Extensive deposits of lignite, some of great thickness, are found at Lal-Lal, Daylesford, and in Gipps Land.

Four leases of land for mining for lignite were in force on the 31st of December, 1865, for an aggregate area of 669a. Or. 24p.

The "Victoria Brown Coal" and "Australia Lignite" Companies state that they are waiting for the results of experiments, which are being made in Europe, for the purpose of ascertaining the best and most economical method of compressing the material and preparing it for use.

They are making enquiries in Bavaria and Saxony, and the Australia Company say they have an agent in Prussia for the same purpose.

The Victoria Patent Manure and Chemical Company have raised about 35 tons since the 7th of October last.

The leases of the two former companies are situated near the Lal-Lal railway station; that of the last-named company between the White Horse and Frenchman's leads, at Sebastopol, near Ballarat.

According to the returns received it appears that the following quantities have been raised:—

Previously—Up to 31st December, 1864	...	...	...	...	Tons. 200
From 1st January to 31st December, 1865	...	...	...	...	35
					<hr/> 235

CLAYS.

KAOLIN AND OTHER CLAYS.

Thirteen leases of land have been granted for mining for kaolin and other clays, for an aggregate area of 424a. 1r. 26p. The localities are Bulla-Bulla, Lal-Lal, and Dunolly. Two leases were in force on the 31st December, 1865, for an aggregate area of 24a. 2r. 18p.

The lessees of the block at Dunolly stated, last year, that they proposed to bring Chinese potters from Canton; but they have not yet, it appears, commenced operations.

Some attempts have been made lately to work the clays which are found to occur near Melbourne; but, as the lands are not held under lease, no information has been received from the company.

From returns received it appears that the following quantities have been raised at Bulla-Bulla:—

Previously—Up to 31st December, 1864	...	...	...	...	Tons. 1,695
From 1st January to 31st December, 1865	...	...	...	...	62
					<hr/> 1,757

SLATES.

FLAGS AND ROOFING SLATE.

Seven leases for quarrying slate were in force on the 31st December, 1865, of an aggregate area of 379a. 2r. 24p.

The Chewton Flagging and Slate Company commenced operations in June, 1865, and by the end of the year had raised about 1,200 square yards of flagging.

The Golden Point Flagging and Slate Company, whose lease is also situated at Chewton, report 300 yards as having been obtained during 1865.

The Victoria Slate Mining Company, Gisborne, have only just commenced operations. They state that they have taken out about 1,000 slates.

The Penrhyn Slate Quarrying Company, at Wombat, near Creswick, report that they have got out about 43 tons during the year.

The Moorabool Slate Mining Company state that they have expended about £2,000 on their leased ground. They are erecting sawing and planing machinery, and expect that they will be enabled, in a short time, to place flagging and roofing slates on the market.

Five searching licenses, for an aggregate area of 2,090 acres, were granted in 1865.

MISCELLANEOUS MINERALS.

CARBONATE OF MAGNESIA, OR MAGNESITE.

No report has been received from the licensees, to whom three searching licences were issued.

DIAMONDS.

Locality: Beechworth. Diamonds have been obtained, it is said, from Reid's Creek, Wooragee, Upper Woolshed, Sebastopol, and El Dorado.

According to a statement prepared last year by Mr. Barnard, who was then Warden at Beechworth, it appears that forty* diamonds had been found, from one-eighth of a carat to two and a half carats; and the Mining Surveyor reported, on the 31st December, 1864, that a Chinaman had found a diamond at Sebastopol weighing 17·64 carats.

Mr. Gaunt, the Warden at Beechworth, reports that fifteen diamonds have been found in a claim belonging to Mr. Finn, at the Woolshed, during the year 1865; they weighed from half a carat to one carat.

The numbers, as reported, therefore stand thus:—

Previously—Up to 31st December, 1864	...	...	...	41
From 1st January to 31st December, 1865	...	...	...	15
				—
				56
				—

SAPPHIRES, ETC.

No important discoveries have been made during the past year. One fine sapphire, said to have been found at Donnelly's Creek, was lately offered for sale in Melbourne. The sapphire, spinel ruby, topaz, and zircon, are found in the auriferous drifts; and it is probable that many valuable stones are thrown away every day. At Tubba-Rubba Creek, Mornington, and at the Blue Mountain (Trentham), very fine blue sapphires are found, with crystals of zircon and powdered quartz. Fine specimens have been found also in the Yarra Ranges, where occur also the onyx, agate, &c. The topaz is found near Pleasant Creek, and some fine specimens have been brought from that locality.

R. BROUGH SMYTH,

Secretary for Mines.

Mining Department,
Melbourne, 10th March, 1866.

* The owners of twenty-two of these were known.

1868.

VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1867.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority :

JOHN FERRES, GOVERNMENT PRINTER, MELBOURNE.

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MEMORANDUM.

The MINERAL STATISTICS for 1867 have been prepared this year somewhat earlier than usual, yet they contain more information, and include a greater number of subjects of interest, than those of former years.

While the old centres of population are still prosperous, the miners continue to explore, with scarcely diminished energy, the more remote parts of the colony, many of which are now the scenes of active industry.

The Gold Fields now extend westwards from Stawell to the River Bendoc, on the eastern confines of the colony—a distance of three hundred and fifty miles—and from north to south nearly one hundred and eighty miles.

It is not easy to collect accurate information respecting the proceedings of the miners over so large an area ; and but for the zeal and activity of the several officers employed in the department, and the prompt courteous replies made to enquiries by mine-owners and others, these tables could not have been compiled.

JOHN MACGREGOR,
Minister of Mines.

Office of Mines,
Melbourne, 22nd February, 1868.

MINERAL STATISTICS, 1867.

THE information contained in the Mineral Statistics this year, though arranged as nearly as possible in the same manner as formerly, is more ample, and has reference to a greater variety of subjects than have been dealt with hitherto.

In the endeavour to make the tables as complete and accurate as possible, and to get additional information relative to matters which have not previously engaged attention, all the officers of the department whose services have been enlisted have labored zealously.

The new tables relating to the revenue derived from the Gold Fields ; the wages paid per week for the several kinds of labor ; the prices of mining materials in some of the more important mining centres ; the quantities, kinds, and value of timber consumed annually for mining purposes ; and some others of scarcely less importance, will, it is to be hoped, prove useful to all engaged in mining operations, and at the same time direct public attention to some questions of moment, which, in the absence of statistics, could not be judiciously dealt with.

The table relating to the consumption of timber, for instance, has a peculiar value at a time when steps are about to be taken to protect and plant the Forest Reserves.

It is scarcely necessary to repeat, that each year zealous efforts are made to gather useful facts relating to the condition of the Gold Fields, and that all the officers of the department take a proper interest in the work, and willingly give their help whenever they are called upon.

Lessees of auriferous and mineral lands, licensees, and large mine-owners holding lands under the bye-laws, almost invariably give information with alacrity, and there is no reason to doubt that, in each succeeding year, the Mineral Statistics of Victoria will become more and more valuable.

GOLD.

The decrease in the number of miners employed, which has been observed from year to year since 1859, though not so large this year as last, if we compare the mean numbers for the two years, is yet so great as to occasion surprise.

The mean number of miners employed in 1866 was 73,577, and in 1867 it is 65,857, showing a decrease of 7,720.

Comparing the last quarter of 1866 with the last quarter of 1867, the decrease is 7,741.

Number of
miners em-
ployed.

The following tables show the numbers for the last quarter of 1866, side by side by the numbers for the last quarter of 1867, and the decrease or increase for each district :—

Alluvial miners.

ALLUVIAL MINERS.

DISTRICTS.					1866.	1867.	Decrease.	Increase.
Ballarat	...	...	...	...	14,186	13,937	249	—
Beechworth and Gipps Land*	...	...	...	...	9,873	9,395	478	—
Sandhurst	...	...	...	...	6,733	6,199	534	—
Maryborough	...	...	...	...	10,060	7,580	2,480	—
Castlemaine	...	...	...	...	10,447	8,282	2,165	—
Ararat	...	...	...	...	4,617	3,643	974	—
					55,916	49,036	6,880	—

Quartz miners.

QUARTZ MINERS.

DISTRICTS.					1866.	1867.	Decrease.	Increase.
Ballarat	...	...	...	...	2,005	2,202	—	197
Beechworth and Gipps Land*	...	...	...	...	2,941	3,372	—	431
Sandhurst	...	...	...	...	4,118	3,698	420	—
Maryborough	...	...	...	...	2,292	1,925	367	—
Castlemaine	...	...	...	...	2,648	2,038	610	—
Ararat	...	...	...	...	874	782	92	—
					14,878	14,017	1,489	628

* Gipps Land was separated from Beechworth and made a mining district by an Order in Council dated 17th December, 1866. Figures relating to it are given separately in the tables.

In none of the districts is there an increase in the number of alluvial miners ; and in the Mining Districts of Maryborough and Castlemaine the decrease is very large.

As regards Maryborough, this is mainly due to the fact that large numbers of the Chinese miners have left the Central Division, and to a considerable reduction of the number of European miners in the Dunolly Division.

In the Central Division of the Castlemaine District there is a decrease of 620 in the number of Chinese alluvial miners ; and in the other large divisions the decrease in the number of both European and Chinese alluvial miners is considerable.

The operation of the 42nd section of *The Amending Land Act*, and the prosecution on an extensive scale of public works for the supply of water to Geelong and the Gold Fields, have had the effect of withdrawing great numbers from mining pursuits. Those who have a desire to acquire landed property, and those who can apply only unskilled labor in mining operations, are glad to have an opportunity of leaving a somewhat uncertain, but in the main a profitable pursuit, for employments better suited to their tastes and capacities.

In 1866 there was a decrease in the number of quartz miners, as compared with 1865, of 2,448, and it is a hopeful sign that this year it is so much smaller, and that in the two districts—Ballarat and Beechworth—where the decrease was so remarkable in 1866, there is this year in both a small increase.

The following table shows the total number of miners employed on the Gold Fields from 1859 to 1867 inclusive :—

YEAR.	ALLUVIAL MINERS.		QUARTZ MINERS.		Total Miners.
	Europeans.	Chinese.	Europeans.	Chinese.	
1859	85,249	25,149	15,342	24	125,764
1860	69,724	20,542	18,268	28	108,562
1861	61,516	24,536	14,403	8	100,463
1862	53,042	23,634	16,675	28	93,379
1863	54,050	23,271	15,661	12	92,994
1864	47,234	21,589	16,155	8	84,986
1865	41,226	20,905	17,298	28	79,457
1866	35,816	20,100	14,844	34	70,794
1867	33,407	15,629	13,970	47	63,053

That the total number of miners in 1867 should be little more than half of the number for 1859 is, at the first view, somewhat perplexing, and seemingly irreconcilable with that appearance of prosperity which is observable in nearly every part of the colony ; yet, when taken in connection with other statistics—those relating to roads, public works, municipalities, agriculture, and stock—it is even more surprising that so much should have been done for the permanent improvement of the towns, in the construction of railways and roads, and in reclaiming waste lands, and that still more than 60,000 persons among a population of 660,000 should continue to give all their labor to the work of searching for gold.

On the 31st December, 1867, there were 15,629 Chinese miners engaged in alluvial mining and 47 in quartz mining, making a total of 15,676. Chinese miners.

Having regard to the extent of the auriferous areas, they are not very unequally distributed throughout the mining districts, except as regards Gipps Land, where there are only 640 enumerated. It is probable, however, that in this district a good many not included in the registrars' returns are employed near the boundary line between this colony and New South Wales.

Last year the number was 20,134, showing a decrease of 4,458. Several causes have operated to reduce the number of those employed in mining. A great many have found employment in New Zealand, not a few have returned to China,* and large numbers have found it profitable to devote their labors to gardening in places where there is a ready market for their produce.

It is, perhaps, not more difficult now than formerly for them to get good profits by re-working abandoned auriferous ground ; and, enjoying in every respect the same privileges as Europeans, it is somewhat remarkable that the numbers continue to decrease.

Tables showing the numbers employed in each year since 1855 are to be found in the *Mineral Statistics* for 1865 and 1866.

* According to the returns furnished by the Immigration Department, 949 Chinamen have left for New Zealand and 760 for Hong Kong during the past year. The arrivals were 317 only.

Average earnings
of the miners.

The following is a statement of the average earnings per man per annum for the past eight years, without distinction of classes :—

							£	s.	d.
1860	...	...	...	...	...	...	79	9	3
1861	...	...	...	...	...	...	74	15	11
1862	...	...	...	...	...	...	67	17	10
1863	...	...	...	...	...	...	70	9	2
1864	...	...	...	...	...	...	74	1	9
1865	...	...	...	...	...	...	74	4	2
1866	...	...	...	...	...	...	80	8	3
1867	...	...	...	...	...	...	87	1	7

The mean for the eight years is £76 1s. nearly.

The average earnings per man per annum of the alluvial miners and quartz miners severally (using the mean numbers employed throughout the year), from 1863 to 1867, are as follows :—

YEAR.			ALLUVIAL MINERS.			QUARTZ MINERS.		
			Numbers.	Earnings per Man per Annum.			Numbers.	Earnings per Man per Annum.
				£	s.	d.		£ s. d.
1863	...	...	76,343	59	7	10½	16,024	123 3 9½
1864	...	...	67,982	61	6	0	15,414	130 13 9¾
1865	...	...	65,484	66	16	3	17,730	101 10 5½
1866	...	...	57,892	66	4	1	15,685	132 17 4¾
1867	...	...	51,719	67	10	7½	14,138	158 11 8¾

These calculations must not be accepted as absolutely correct, though every endeavour has been made to get accurate data, both as regards the number of miners employed severally in alluvial mining and quartz mining and the total quantities of gold derived respectively from the alluviums and the veins.

Looking at the estimates made by the Mining Surveyors and Mining Registrars of the total yields of gold from both sources, as given by them from year to year, it seems almost beyond doubt that a larger quantity of gold is raised in the colony than is recorded in the returns. What becomes of it or how it is removed is inexplicable. The estimates of the officers are based on information given (confidentially) by the bank managers and the gold-buyers in their several divisions; and, making every allowance for discrepancies and errors, it still seems probable that the total quantity of gold, as recorded every year, is below the quantity actually raised.

With respect to the earnings of the quartz miners the difficulty is not so great, because there is some check—though an insufficient one—on the estimated quantity of gold got. This cannot fall below, nor very greatly exceed, the amount given in Table No. 20, which shows the quantities of gold actually obtained from certain parcels of quartz crushed. The average earnings of the quartz miner would amount to £141 1s. 9¼d., if we assumed that no more was produced than is set down in that table; but it is well known that it is at present impossible to get returns from all the mills.

It is satisfactory to note that, in whatever way the matter is tested, this fact is indisputable that, both from the alluvial mines and the quartz veins, the average returns per man per annum are higher this year than they have been at any time during the past eight years.

The tables relating to machinery do not give a fair indication of the improvements which have been made in the appliances for the extraction of gold from quartz veins. The total number of engines employed remains nearly as it was last year ; but many small additions to apparatus—which it is not possible to comprise in a return—have been made in several of the larger establishments, and with good results.

The number of steam engines employed and the stamp-heads for reducing vein-stuff for the past four years are as follows :—

YEAR.	ALLUVIAL MINING.		QUARTZ MINING.		
	Steam Engines employed in Winding, Pumping, Puddling, &c.		Steam Engines employed in Winding, Crushing, &c.		
	Number.	Aggregate Horse-power.	Number.	Aggregate Horse-power.	Number of Stamp-heads.
1864	441	6,891	447	7,746	4,575
1865	473	8,208	491	8,606	5,119
1866	480	9,981	510	9,231	5,437
1867	470	9,863	532	9,955	5,529

There is a slight decrease in the power employed in alluvial mining, but in quartz mining the increase is marked and satisfactory. The notes appended to Table No. 10 show the changes which have taken place in the several districts and divisions. Comparisons of the value of the machinery on the Gold Fields, as estimated at the end of each year, are, for the reasons given in the *Mineral Statistics* for 1866, not of much value ; but, taken in connection with information given in other tables, serve as a guide in determining the rate of progress in mining operations.

Much care has been taken this year in making the estimates, and it appears that there is a small increase in the total value. In 1866 the amount was £2,068,527, and this year it is £2,079,195.

The estimated value for each district is as follows :—

	£
Ballarat	713,775
Beechworth	246,607
Sandhurst	421,150
Maryborough	211,500
Castlemaine	254,805
Ararat	110,558
Gipps Land	120,800
Total ...	£2,079,195

Information respecting the estimated value of the machinery for each year, from 1859 to 1866 inclusive, is given in the *Mineral Statistics* for 1866.

Making allowances for the decrease in the money value of machinery—due to the increased facilities for manufacturing large pieces on the spot where they are to be used—to the ease with which heavy castings can now be transported by railway or over good roads—where formerly there were only bush tracks—and to the reduced prices of labor of every kind, it is a sure sign of progress that the value of all machinery on the Gold Fields is this year nearly twice as much as it was in 1859.

According to the returns made by the Mining Registrars and Surveyors there are 2,381 auriferous quartz reefs already opened, and 868 $\frac{1}{4}$ square miles of auriferous ground which have been worked more or less.

Quartz reefs and area of auriferous ground.

The Mineral Statistics for previous years, and other publications emanating from the Mining Department, contain information touching the auriferous areas which have not yet been operated on by the miner, and which are not included in this return.

It will be observed that the figures vary from year to year. As the shallow alluviums of the older Gold Fields are abandoned by the miner, they are taken up and occupied, under the provisions of *The Amending Land Act*, by agriculturists and gardeners, and ground which one year was included in the estimated area of gold workings is excluded in another.

The figures, if not strictly correct, are as accurate as the officers can make them, and for all practical purposes sufficient.

Even when land is occupied by miners it is not always practicable to determine whether or not it is auriferous, unless they shall have penetrated to the bed-rock ; and large blocks are from time to time taken up by prospectors, and held for a short time and abandoned.

Area of land held
as claims.

The total area of land held as "claims" under the bye-laws of the Mining Boards was, on the 31st December, 1867, as follows :—

	a.	r.	p.
Ballarat	20,877	1	25
Beechworth	25,834	1	7
Sandhurst	4,129	0	0
Maryborough	4,672	2	19
Castlemaine	6,066	1	29
Ararat	7,038	0	0
Gipps Land	7,060	0	36
Total	75,677	3	36

Of this area 13,606a. 0r. 5p. were lying idle, being protected by registration or exemption certificates, leaving only 62,071a. 3r. 31p. in the occupation of the miner, on which, under the provisions of the bye-laws, he would be required to employ labor. Under the leasing regulations there were, according to the tables, 11,846a. 2r. 4p. demised for gold mining purposes.

Excluding the land protected by certificates (which may or may not be worked hereafter), there were, therefore, only 73,918a. 1r. 35p. actually held *bonâ fide* for mining purposes on the 31st December, by 63,053 miners, giving an average per man of 1a. 0r. 27p.

Number of leases
and areas held
under lease.

The number of leases in force in the several districts on the 31st December, 1867, was as follows :—

DISTRICT.	Number of Leases.	Area.		
		a.	r.	p.
Ballarat	44	2,282	1	20
Beechworth	111	1,453	0	34
Sandhurst	468	2,960	0	30
Maryborough	197	2,026	3	15
Castlemaine	111	1,043	0	4
Ararat	46	1,088	0	7
Gipps Land	70	992	3	14
	1,047	11,846	2	4

The total amount of capital proposed to be employed in working these areas was £3,194,281.

Heretofore a great many leases have been applied for, and in many instances obtained, by persons who had no intention of fulfilling the covenants of the leases. It is obviously impossible for the department to know whether or not applicants have an intention to work the ground and to invest capital; and, where no objections are urged, the leases almost invariably are granted. But from time to time careful enquiries are made as to the operations of the lessees, and, whenever it appears that the lands are not being wrought—that they are neglected or abandoned—the leases, after sufficient enquiry, are declared void.

As a rule, however, the labor covenants are observed, or, if not strictly observed, a reasonable amount of labor is expended in developing the mines. The following table, which has been compiled from official records in the office, will be of use. It has reference to only 790 leases; but it proves that, under the leasing system, a good deal of hired labor is absorbed:—

DISTRICTS.			Number of Leases.	Area.			Number of Men as per Covenants.	Number of Men actually employed, as per returns.
				a.	r.	p.		
Ballarat	...	...	32	1,051	0	21	646	671
Beechworth	...	...	109	1,347	2	28	1,182	592
Sandhurst	...	...	289	1,622	2	15	1,649	1,857
Maryborough	...	...	174	1,569	2	31	1,972	934
Castlemaine	...	...	99	916	1	0	1,008	692
Ararat	...	...	33	697	3	3	374	243
Gipps Land	...	...	54	875	3	35	566	270
Totals	...	...	790	8,081	0	13	7,397	5,259

Defaulting lessees, in times past, have given a good deal of trouble. When it became inconvenient to fulfil the covenants, they abandoned the ground, and paid no regard to the letters which were sent to them. They failed to pay the rents, and neglected to give reasons for non-payment. This at length engaged attention, and a salutary rule has been made affecting defaulters: when a lease is applied for the records are searched, and, if the applicant has been previously a leaseholder, and has failed to pay the rents due, he is informed that, in order that the application may be entertained, he should pay the arrears due by him. This has had a beneficial effect, which is not to be measured by the amount recovered during the past year—£98 14s. 9d. Lessees now more carefully observe the covenants, and, when they desire to surrender a lease, they do so in proper form.

Rents are now more easily collected, and there is at the present time out a small sum in arrear.

Lessees have learnt by experience that, if they neglect to pay the rents at the right time, their leases are liable to forfeiture.

If the rent be not paid on the day on which it is due, the Receiver and Paymaster, acting under instructions, refuses to receive it if tendered at a later date, and, unless the lessee is able to give good reasons for omitting to comply with this covenant, his lease is declared void. This measure, which may appear to be somewhat harsh,

was at length forced on the department, not by many accidental omissions to pay rent, but by the habitual continued neglect of the obligations of the leases.

Revenue derived
from the Gold
Fields.

Table No. 44 shows the revenue derived from the Gold Fields for each year, from 1851 to 1867 inclusive. The total amount is £5,179,445 0s. 9d. Carefully studied, this cannot fail to be instructive, not alone to the people of this colony, but in every country where there is a system of taxation.

The headings of the several columns and the footnotes give ample information relative to the sources from which this large sum has been derived.

Rent paid per acre
under the bye-
laws and under
the leasing
regulations.

The revenue derived during 1867 from lands held by virtue of miners' rights under the bye-laws of the Mining Boards was £11,567 18s. 9d., and, taking the mean total area so held for the past year, the miners have paid at the rate of 3s. 0·47d. per acre; and, under the leasing system (dividing the total sum received as rents by the average area held, whereby allowance is made for lands taken up and forfeited because of non-payment of the rents), the amount actually paid per acre is 15s. 4d.

Value of
"claims."

The estimated value of the "claims" in all the districts of the colony is £7,461,212. This, it is hardly necessary to say, is liable to great fluctuations. Shares which are worth one day only £17 are on another selling for £100. It may safely be assumed that this year the estimates are rather under than in excess of the market value.

Yield of gold
from quartz.

According to the returns made by the Mining Registrars and Mining Surveyors, information has been procured relative to 948,850 $\frac{1}{2}$ $\frac{2}{0}$ tons of quartz crushed during the year 1867, which yielded 498,677 ozs. 12 dwts. of gold, or an average of 10 dwts. 12·2 grs. per ton.

The following table shows the average yield per ton for each district for the past eight years :—

DISTRICT.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.
	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.
Ballarat ...	12 13	8 0	5 15	4 22	4 16·4	5 3·9	4 21	6 21·7
Beechworth ...	74 9	33 23	21 12	49 7	23 16·4	27 10·3	18 3·7	12 19·2
Sandhurst ...	47 1	30 9	14 2	26 16	9 16·9	13 11·8	9 16·8	9 2·2
Maryborough ...	27 21	22 13	18 7	13 9	12 5·8	10 22·1	11 7·3	10 6·2
Castlemaine ...	22 11	16 19	15 7	14 3	13 23·7	13 4·9	13 18·5	11 12·4
Ararat ...	18 20 31 15	19 13	14 6	10 5	11 4·4	13 16·7	15 11·9	17 17·1
Gipps Land ...	...	...	...	...	...	...	...	27 5·6

The large yields in 1860 and 1861 are explained when the tables to which the averages relate are contrasted with those for the following years. At first it was not possible to get returns from many of the mills, and those obtained had reference probably to parcels which gave exceptional results.

Up to the present time information has been received relative to the yield from 4,925,440 $\frac{1}{2}$ $\frac{1}{0}$ tons of quartz; and the average per ton is 11 dwts. 16·14 grs.

The average yield during the past year has varied from 3 dwts. 6·9 grs. in the Southern Division of the Ballarat District, to 4 ozs. 8 dwts. 13·5 grs. in the Jamieson South Subdivision of the Beechworth District.

Instances of great yields from small parcels of quartz might be given; but, as these are recorded in the Quarterly Reports of the Mining Registrars, it is not necessary to repeat them in this place.

Table No. 22 shows the average yield of gold from certain parcels of quartz-tailings, mullock, cement, &c., which have been put through some of the mills. Quartz-tailings, mullock, &c.

From a total of 199,737 $\frac{1}{2}$ tons there have been obtained 37,869 ozs. 7 dwts. of gold, or an average of 3 dwts. 19 grs. per ton.

During the past four years the returns show that 798,026 $\frac{1}{10}$ tons have given an average of 4 dwts. 7·6 grs. per ton.

An interesting question, now engaging a large share of public attention, is the extraction of gold from auriferous pyrites. Gold from pyrites.

The following statements, which bear upon it, are taken from the Reports of the Mining Surveyors and Registrars:—

In the Creswick Division 165 tons of pyrites yielded 751 ozs. 8 dwts. of gold, or an average of 4 ozs. 11 dwts. 1·89 grs. per ton.

In the Crooked River Subdivision two tons gave 94 ozs. 14 dwts., or at the rate of 47 ozs. 7 dwts. per ton.

There is a machine at Twist's Creek which has been erected for the purpose of operating on auriferous pyrites, but no returns have yet been received.

From the Blackwood Division a number of samples have been sent to Melbourne, and the yield is said to be from £17 to £32 per ton.

In the Buckland Division one miner collects pyrites from the old tail-races. He has not kept a record of the yields, but he estimates that, on an average, one ton of the tailings yields 1 oz. of gold.

In the Sandhurst Division the manager of the Comet Company obtained gold at the rate of 3 or 4 ozs. per ton from a few tons of *blanketings* put through an arrastre. Several companies are saving their tailings; and, as many of the reefs in this division contain large quantities of auriferous pyrites, a fair field is open to the practical chemist and experienced miner.

Mr. H. A. Thompson, who has directed much attention to the extraction of gold from pyrites, communicated the results of his system, as it is in operation at Clunes, in a letter to the *Bendigo Advertiser*.

They are thus stated:—

Quantity of concentrated pyrites operated on	...	...	268 tons.
Amount of gold obtained	...	...	796 ozs. 8 dwts.
Value of gold	...	...	£3,169 7s. 9d.
Cost of operating	...	...	£800 4s.
Profit on one year's work	...	...	£2,369 3s. 9d.
Proportion of total gold contents extracted	...	...	86 per cent.
Leaving loss	...	...	14 per cent.

The average return of gold is therefore about 3 ozs. per ton, and the cost of extracting the gold £3 per ton, or £1 per ounce.

The prices per ton for crushing quartz, &c., have ranged from 4s. to £1 10s. Prices for crushing.

The lowest prices obtain in the Districts of Ballarat and Castlemaine, and the highest in Beechworth and Gipps Land.

Additional particulars—touching the weight and cost of stamp-heads and shanks or lifters, the quantities of quartz crushed per head per diem, the number of holes per square inch in the gratings, the quantity of water used, and the quantity of quicksilver used and the quantity lost—are, for the first time, included in these tables. They have reference only to the principal gold mines in the several districts; but they will not on that account be less useful. Weight and cost of stamp-heads, &c.

Table No. 47 shows the total quantities and the approximate cost of timber used for mining purposes in the several mining districts. Quantity and cost of timber consumed.

The total cost for each district is as follows :—

					£	s.	d.
Ballarat	...	...	...	...	288,927	5	8
Beechworth	...	...	...	...	42,208	17	8
Sandhurst	...	...	...	...	74,614	1	0
Maryborough	...	...	...	...	43,940	5	6
Castlemaine	...	...	...	...	57,508	14	2
Ararat	...	...	...	...	45,537	4	0
Gipps Land	...	...	...	...	8,387	7	0
Total ...					561,123	15	0

Wages. Table No. 45 shows the wages paid for different kinds of labor in the several districts. It has been compiled with care, and is deserving of careful study. It serves to answer some questions which of late have engaged public attention.

Prices of mining materials. The prices of mining materials in the more important mining centres will be useful to mine-owners and mining managers, and will be interesting also to those in other countries who are watching our operations.

Races and reservoirs. The length of water races is 2,300 miles 24 chains. These are used exclusively for mining purposes, and have cost, according to the information furnished by the Registrars, £321,903, or at the rate of £139 18s. 8d. per mile.

Water-right licenses. On the 31st December, 1867, there were 126 water-right licenses in force. The areas occupied amount in the aggregate to 1,194a. 2r. 23p., the total length of the races is 300 miles 13 $\frac{5}{10}$ chains, and the maximum quantity of water to be diverted per diem is 131,990,000 gallons. The aggregate area of the reservoirs under license is 303a. 2r. 17p., and the total capacity of the same 232,102,092 gallons. The capital invested, or proposed to be invested, in these works is £138,257, and the annual rent paid is £989 10s. These figures, when compared with those of last year, indicate some progress; but it is undeniable that much more might be done by the miners, both in conserving water and in conveying it to the Gold Fields, than has yet been attempted. With innumerable excellent sites for dams, with vast areas of Crown lands open to their enterprise, and with hundreds of miles of rich alluviums lying unworked, it is surprising that capital is not more largely employed in the construction of water-works. Under the regulations relating to water-rights the miners can get a secure tenure for fifteen years, and the licenses are renewable. If the lands on which their works are constructed should be required for public purposes, and if they be resumed, a sum equal to the cost of the works, with a percentage added thereto not exceeding fifty per cent., is in ordinary cases paid as compensation.

Public reservoirs. Table No. 49, which has been compiled by the Chief Engineer for Water Supply, gives particulars respecting the public reservoirs completed or in progress. It shows the localities where the works are situate, the area of each reservoir, the storage capacity, the area of drainage, the actual or estimated cost of the whole of the works, the cost per million gallons of water stored, the average cost of earthwork and puddle-wall per cubic yard, and the maximum height of the banks.

Companies registered. Table No. 42 relates to the mining companies registered in the several Courts of Mines during the past year.

The number of companies is 160, the number of shares 491,804, and the nominal capital £1,234,096 10s. Ballarat, as formerly, stands at the head of the list, and the new Mining District of Gipps Land at the foot.

The number of companies wound up during the year was 12; the number of shares comprised in them was 16,680, and the nominal capital was £131,600.

Information relative to companies registered prior to the 1st January 1867 is given in tables 40 and 41 of the *Mineral Statistics* for 1866.

The balance of deposits made by applicants for leases and licenses was, on the 31st December 1866, £7,419 10s. 2d., the total sum received during the year 1867 was £7,365 14s. 9d., and the disbursements during the same period were £8,425 2s. 8d., leaving a balance of £6,360 2s. 2½d. in the hands of the wardens' clerks on the 31st December 1867.

Deposits under the leasing and licensing system.

The system under which disbursements are made, namely, by schedules signed by the Secretary for Mines, and forwarded, as occasion requires, to the several bank managers, continues to work well.

Table No. 40. shows the transactions at each station.

The number of miners' rights issued during the year 1867, for one year, at five shillings each, was 41,011 ; for two years, at ten shillings each, 7 ; for three years, at fifteen shillings each, 3 ; for four years, at twenty shillings each, 16 ; for five years, at twenty-five shillings each, 2 ; and for six years, at thirty shillings each, 1. The number of consolidated miners' rights issued was 176, representing 5,311 single rights, at five shillings each. Fees were paid for ante-dating miners' rights in 52 cases.

Miners' rights, &c.

The total amount received for miners' rights for the year was £11,619 5s.

The business licenses issued for six months, at fifty shillings each, were 1,430 ; and there was one transfer. The total amount received for business licenses was £3,575 10s.

In many parts of the colony, where large quantities of gunpowder are used by the miners in blasting operations, there are no magazines ; and it is not possible, therefore, to get returns which would be of value. Where there are magazines, the returns are complete and accurate.

Gunpowder.

The quantity of gunpowder in stock in the several magazines on the Gold Fields on the 31st December, 1866, was 71 tons 16 cwt. 21lbs., the quantity received during the year was 186 tons 12 cwt. 1 qr. 14 lbs., the quantity issued 196 tons 13 cwt., and the quantity in stock on the 31st December, 1867, 61 tons 15 cwt. 2 qrs. 7 lbs.

A considerable quantity of blasting powder is used in the Sandhurst and Ballarat districts ; but in the other districts it is not very largely consumed.

A great many applications for rewards for the discovery of new Gold Fields having been made to the department, it was considered advisable to appoint a Board to consider them, in order that, if any of the cases came within the conditions approved of by Parliament when the vote of £10,000 for rewards was taken in 1866, they might be settled. The Board has had several meetings, and has dealt with all the applications made, and has recommended that rewards be paid as follows :—

Rewards for discoveries of new Gold Fields.

	£
For the discovery of Cameron's Creek Gold Field	90
„ Ray's Rush	150
„ Shakespeare Hill	90

These are payable out of the vote of £10,000.

The following will be submitted for the consideration of the Legislative Assembly :—

	£
For the discovery of the Alexandra Gold Field	150
„ St. Arnaud	350
„ Tunstall	400

The Board of Examiners appointed by the Governor in Council to test the qualifications of candidates for the office of mining surveyor has held two examinations.

Examination of mining surveyors.

A report made by the Secretary, Mr. J. W. H. Williams, shows that, at the first examination, eleven gentlemen presented themselves and six passed, and at the second eight, of whom three passed.

Examinations are held four times in the year, namely—on the first Wednesday in January, April, July, and October.

Candidates are required to give notice of their intention to appear before the Board on or before the first day of the month next preceding the month in which the examination is to be held.

The subjects in which candidates are examined are as follows :—

1. Surface and underground surveying.
2. Plotting and calculation of areas.
3. Levelling.
4. Mensuration of earthwork.
5. Use and adjustment of instruments.
6. Questions in practical mining.

In course of time other branches of knowledge will be embraced which, at present, it is not advisable to include in the examination papers.

Business of the
Mining Department.

More than usual care having of late been devoted to the operations of lessees and licensees of lands held for mining purposes, particularly as regards the covenants relating to labor and rents, the correspondence of the department during the past year has been extensive.

The number of letters received (exclusive of returns) was 13,483 ; the number despatched, 15,213 ; the number of accounts passed, 1857 ; the number of triplicate schedules dealt with, 330 ; the returns received, 4,479 ; the correspondence referred from other departments, 2,050 ; and the references outwards, 2,268.

The number of applications lodged for gold mining leases was 377, for mineral leases 12, and for water-right licenses 29.

Of those granted, refused, or forfeited, the total number dealt with during the year was 1,188.

Attendance of
officers.

From careful returns made by the Chief Clerk relative to the attendance of officers in Melbourne it appears that the periods of absence during the year 1867 (on leave, or by reason of sickness), amounted to $100\frac{5}{8}$ weeks, and the overtime to $114\frac{5}{8}$ weeks. Each officer, on his arrival at the office, is required to sign his name, and to enter the time of his arrival in a book kept for the purpose ; and, as this is not permitted to lapse into a mere form, it is possible at the end of the year to compute with accuracy the time actually given by each to the discharge of his duties. It conduces to regularity, and the rule is invariably faithfully complied with.

Collection of
minerals.

Many of the Mining Surveyors and Mining Registrars continue to forward minerals and specimens of rocks, illustrative of the formations in their districts. These are labelled and numbered, and entered in a catalogue.

Mr. H. A. Thompson, Mining Engineer, has forwarded very interesting specimens of quartz ; and Mr. Thomas Eyre, the manager of the Catherine Reef United Claimholders' Gold Mining Company, at Sandhurst, has presented a set of mining tools, which, for neatness of finish and adaptability to the purposes required, are, perhaps, unequalled.



METALS AND MINERALS OTHER THAN GOLD.

Silver.—Only 178 tons of ores were raised at St. Arnaud, and but 78 ozs. 12 dwts. of silver smelted ; but a large quantity of the gold got was mixed with silver, and it is not known how much was parted in Victoria. The Customs returns show that 366 ozs. 2 dwts. of silver were exported.

Tin.—There were 177 tons 10 cwt. of black sand (mostly oxyd of tin), and 4,256 lbs. of tin exported during the year.

Copper.—About 230 tons of ores have been raised, and 3 cwt. of copper exported.

Antimony.—There was 272 tons of sulphide of antimony raised, and 508 tons 7 cwt. exported. This last includes ores which were raised but not sent forward for export during 1866.

Coal and Lignites.—Only a few samples were raised.

Flags and Slates.—There were 1,560 square yards of hearth stones, 2,000 square yards of coreing, 6,440 square yards of paving, and 431 tons 15½ cwt. of flags raised during the year. The quarries containing roofing slates were not worked.

Further information relative to metals and minerals other than gold is given in the Tables.

Appendix No. 1 contains a statement of the imports and exports of metals and minerals, and is intended to show to what extent we are dependent on foreign countries for these supplies. Some of them will, no doubt, cease to appear in the import returns as soon as our mines are fairly developed.

Appendix No. 2 shows the quantity and value of kerosene oil imported into, and exported from, the colony during the past seven years. An attempt to manufacture mineral oils in the colony was made by Mr. Patrick Hayes, of Footscray. He expended some £7,000 in buildings and machinery, and had not the great yields from the mineral springs of America so lessened the price of the oil, his adventure would probably have proved successful, and induced a systematic search for oil shales in this colony. But here, as at home, and for the same reason, the mineral oil works are shut up.

The following is an estimate of the value of the Metals and Minerals raised in the colony from the first discovery of the Gold Fields to the 31st December, 1867:—

<i>Gold</i> .—Quantity raised from the date of the first discovery to the 31st					
December, 1867, 33,910,952 $\frac{3}{4}$ ozs., at £4 per oz....	...	...	...	...	£135,643,811
<i>Silver</i> .—Ore raised, 8,697 tons.					
Produce of Silver from ore smelted, 12,591 ozs. 18 dwts., at 5s. 6d.					
per oz. ... ..	...	...	...	...	3,462
<i>Tin</i> .—Ore exported, 2,380 $\frac{3}{4}$ tons, at £75 per ton...	...	...	...	£178,556	
„ 92 tons 9 cwt., at £70 per ton	...	...	...	6,471	
„ 177 $\frac{1}{2}$ tons, at £52 10s. per ton	...	...	...	9,318	
Tin exported, say 3 tons 12 cwt. 3 qrs. 12 lbs., at £140 per ton				510	
„ 1 ton 18 cwt., at £100 per ton	...	...	...	190	
				—————	195,045
<i>Copper</i> .—Ores raised, 580 tons.					
Smelted, 31 tons 7 cwt., at £112 per ton	...	...	...	£3,511	
Regulus, 33 tons, at £28 4s. 10d. per ton	...	...	...	932	
Rough copper, 8 $\frac{1}{2}$ tons, valued at about	...	...	...	230	
				—————	4,673
<i>Antimony</i> .—Ore raised, 2,114 tons 26 lbs., at £12 per ton ...					
„ 435 tons, at £6 per ton ...	...	...	...	£25,368	
„ 272 tons, at £9 per ton ...	...	...	...	2,610	
				2,448	
				—————	30,426
<i>Coal</i> .—1,933 tons, at £1 10s. per ton ...	...	...	...	...	2,899
<i>Lignite</i> .—235 tons, at 17s. 6d. per ton ...	...	...	...	...	205
<i>Kaolin</i> .—1,757 tons, at £4 per ton ...	...	...	...	...	7,028
<i>Flagging</i> .—44,500 square yards, at 8s. per square yard ...					
431 tons 15 cwt. 2 qrs., at £2 per ton	...	...	...	£17,800	
				863	
				—————	18,663
<i>Slates</i> .—1,000, at £8 per 1,000 ...					
125 tons, at £4 per ton	...	...	...	£8	
				500	
				—————	508
<i>Magnesite</i> .—6 $\frac{1}{4}$ tons, at £2 per ton ...	...	...	...	...	12
<i>Diamonds</i> .—About 80 carats, at an average of, say £1 per carat	...	...	...	...	80
<i>Sapphires</i> .—Sapphires, numbers cannot be estimated—say ...	...	...	...	...	150
				—————	£135,906,962
				—————	

The prices of the several ores, &c., have been obtained from persons best acquainted with the market value of them.

R. BROUGH SMYTH,
Secretary for Mines.

Office of Mines,
Melbourne, 20th February, 1868.

NOTE.—No estimate can be formed of the quantities of gold which have been sent out of the colony privately, nor of the quantity used and manufactured in Victoria.

T A B L E S.

No. 1. SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1867.

QUARTER.	BALLARAT.			BEECHWORTH.			SANDHURST.			MARYBOROUGH.		
	Alluvial	Quartz.	Total.	Alluvial	Quartz.	Total.	Alluvial	Quartz.	Total.	Alluvial	Quartz.	Total.
First Quarter, ending March 31st...	13,723	2,141	15,864	7,146	1,847	8,993	6,496	3,941	10,437	8,966	2,088	11,054
Second Quarter, ending June 30th...	14,428	2,191	16,619	7,352	2,068	9,420	6,565	3,809	10,374	8,470	2,128	10,598
Third Quarter, ending Sept. 30th...	13,871	2,200	16,071	7,413	2,340	9,753	6,929	3,396	10,325	8,260	2,081	10,341
Fourth Quarter, ending Dec. 31st...	13,937	2,202	16,139	7,084	2,629	9,713	6,199	3,698	9,897	7,580	1,925	9,505

QUARTER.	CASTLEMAINE.			ARARAT.			GIPPS LAND.			GRAND TOTALS.		
	Alluvial	Quartz.	Total.	Alluvial	Quartz.	Total.	Alluvial	Quartz.	Total.	Alluvial	Quartz.	Total.
First Quarter, ending March 31st...	10,115	2,589	12,704	4,069	809	4,878	2,235	817	3,052	52,750	14,232	66,982
Second Quarter, ending June 30th...	9,572	2,490	12,062	4,114	753	4,867	2,415	795	3,210	52,916	14,234	67,150
Third Quarter, ending Sept. 30th...	9,131	2,676	11,807	4,244	585	4,829	2,326	791	3,117	52,174	14,069	66,243
Fourth Quarter, ending Dec. 31st...	8,282	2,038	10,320	3,643	782	4,425	2,311	743	3,054	49,036	14,017	63,053

NOTE.—The mean number of miners employed during the year was 65,857; and the total quantity of gold exported 1,433,637 ozs. 6 dwts., which, at £4 per oz., gives £37 ls. 6⁹d. per man per annum. The rate per man per annum for 1866 was £80 8s. 3⁸d.; for 1865, £74 4s. 2d.; for 1864, £74 1s. 9²d.; for 1863, £70 9s. 2⁴d.; for 1862, £67 17s. 10⁶d.; for 1861, £74 15s. 11d.; and for 1860, £79 9s. 3d.

No. 2. SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS during the Quarter ending 31st December, 1867.

MINING DISTRICTS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Ballarat District	10,884	3,053	2,194	8	13,078	3,061	16,139
Beechworth District	3,580	3,504	2,624	5	6,204	3,509	9,713
Sandhurst District	4,781	1,418	3,698	...	8,479	1,418	9,897
Maryborough District	5,464	2,116	1,909	16	7,373	2,132	9,505
Castlemaine District	4,957	3,325	2,020	18	6,977	3,343	10,320
Ararat District	2,070	1,573	782	...	2,852	1,573	4,425
Gipps Land District	1,671	640	743	...	2,414	640	3,054
Totals	33,407	15,629	13,970	47	47,377	15,676	63,053

No. 3.

NUMBER of MINERS employed in the MINING DISTRICT OF BALLARAT during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Central Division	5,950	566	382	...	6,332	566	6,898
Southern Division	1,037	508	62	8	1,099	516	1,615
Buninyong Division... ..	1,058	250	340	...	1,398	250	1,648
Smythesdale Division	1,160	600	...	...	1,160	600	1,760
Creswick Division	800	500	600	...	1,400	500	1,900
Gordon Subdivision	70	22	40	...	110	22	132
Steiglitz Subdivision	250	180	450	...	700	180	880
Blackwood Division	550	420	320	...	870	420	1,290
Blue Mountain South Subdivision	9	7	...	...	9	7	16
Totals... ..	10,884	3,053	2,194	8	13,078	3,061	16,139

No. 4.

NUMBER OF MINERS employed in the MINING DISTRICT OF BEECHWORTH during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Beechworth Subdivision	616	1,000	175	...	791	1,000	1,791
Stanley Subdivision... ..	311	150	16	...	327	150	477
Yackandandah Subdivision	882	315	600	...	1,482	315	1,797
Sandy Creek Subdivision	29	123	...	...	29	123	152
Indigo Division	295	167	50	...	345	167	512
Buckland Division	209	1,342	341	5	550	1,347	1,897
Jamieson North Subdivision	350	65	798	...	1,148	65	1,213
Gaffney's Creek Subdivision	90	80	140	...	230	80	310
Wood's Point Subdivision	320	6	439	...	759	6	765
Big River Subdivision	156	6	15	...	171	6	177
Mitta Mitta Division	230	240	...	...	230	240	470
Jamieson South Subdivision	92	10	50	...	142	10	152
Totals	3,580	3,504	2,624	5	6,204	3,509	9,713

No. 5.

NUMBER OF MINERS employed in the MINING DISTRICT OF SANDHURST during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Sandhurst Division	3,700	900	2,605	...	6,305	900	7,205
Kilmore Division	168	300	132	...	300	300	600
Heathcote Division and Waranga } South Subdivision	342	120	425	...	767	120	887
Waranga North Subdivision	71	98	336	...	407	98	505
Raywood Division	500	...	200	...	700	...	700
Totals	4,781	1,418	3,698	...	8,479	1,418	9,897

No. 6.

NUMBER OF MINERS employed in the MINING DISTRICT OF MARYBOROUGH during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Maryborough Division	1,685	436	531	...	2,216	436	2,652
Amberst Division	1,604	536	88	...	1,692	536	2,228
Avoca Subdivision	616	373	26	...	642	373	1,015
Dunolly Division	745	385	519	16	1,264	401	1,665
Korong Division	550	300	375	...	925	300	1,225
Redbank and St. Arnaud South Sub- division	170	...	120	...	290	...	290
St. Arnaud North Subdivision	94	86	250	...	344	86	430
Totals	5,464	2,116	1,909	16	7,373	2,132	9,505

No. 7.

NUMBER OF MINERS employed in the MINING DISTRICT OF CASTLEMAINE during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Castlemaine Division	670	700	485	18	1,155	718	1,873
Fryer's Creek Subdivision	1,221	1,037	96	...	1,317	1,037	2,354
Hepburn Division	1,551	835	490	...	2,041	835	2,876
Taradale Subdivision	456	101	68	...	524	101	625
Maldon Division	353	449	642	...	995	449	1,444
St. Andrew's Division	287	168	123	...	410	168	578
Kyneton Subdivision	19	5	66	...	85	5	90
Blue Mountain North Subdivision	400	30	50	...	450	30	480
Totals	4,957	3,325	2,020	18	6,977	3,343	10,320

No. 8.

NUMBER OF MINERS employed in the MINING DISTRICT OF ARARAT during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Ararat Division	360	743	129	...	489	743	1,232
Pleasant Creek Division	490	200	650	...	1,140	200	1,340
Raglan Division	345	530	...	...	345	530	875
Barkly Division	875	100	3	...	878	100	978
Totals	2,070	1,573	782	...	2,852	1,573	4,425

No. 9.

NUMBER OF MINERS employed in the MINING DISTRICT OF GIPPS LAND during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		GRAND TOTALS.
	Europeans.	Chinese.	Europeans.	Chinese.	Europeans.	Chinese.	
Omeo Subdivision	420	300	50	...	470	300	770
Mitchell River Subdivision	393	100	30	...	423	100	523
Crooked River Subdivision	200	190	291	...	491	190	681
Jericho Subdivision	295	50	100	...	395	50	445
Donnelly's Creek Subdivision	90	...	52	...	142	...	142
Stringer's Creek Subdivision... ..	30	...	210	...	240	...	240
Russell's Creek Subdivision	220	...	10	...	230	...	230
South Tarraville Subdivision... ..	23	...	...	...	23	...	23
Totals	1,671	640	743	...	2,414	640	3,054

No. 10.

SUMMARY.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE SEVERAL MINING DISTRICTS DURING THE QUARTER ENDING 31st DECEMBER, 1867.

MINING DISTRICTS.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the District.		
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Quicksilver and Compound Cradles.	Sluices, Toms, and Stalboxes.	Water-wheels.	Hydraulic Hoses.	Pumps.	Stamp Heads.	Boring Machines.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp Heads.	Whims and Pulleys.		Water-wheels.	Whips.
	Total Number.	Aggregate Horse-power.											Total Number.	Aggregate Horse-power.						
Ballarat District	579	105	14	11	2,762	...	32	58	11	102	2,407	5	995	30	12	10	713,775	
Beechworth District	77	24	43	2	13,634	169	4	267	1	45	603	1	875	7	45	6	246,607	
Sandhurst District	489	20	72	...	185	...	...	298	...	137	2,686	7	1,320	177	1	233	421,150	
Maryborough District	524	105	9	66	180	...	9	18	2	82	1,422	9	656	68	...	37	211,500	
Castlemaine District	519	64	23	107	497	8	95	188	1	107	1,899	26	919	146	5	81	254,805	
Ararat District	80	14	7	28	189	...	2	97	2	27	579	8	306	34	...	3	110,558	
Gipps Land District	25	...	...	...	2,145	30	2	217	...	32	419	1	458	1	13	1	120,800	
Totals	2,293	332	168	214	19,592	207	8	622	659	17	532	9,955	57	5,529	463	76	371	2,079,195

NOTE.

In the Ballarat District the machinery used in alluvial mining shows a decrease as compared with the returns for 1866, of 3 steam engines and 30 horse-power. There is an increase of 82 in the number of puddling machines, 24 whims and pulleys, 8 stamp heads, and 6 boring machines. In quartz mining machinery there is a decrease of 10 steam engines, but an increase of 253 horse-power. There is an increase of 5 in the number of crushing machines, and a decrease of 14 stamp heads, and an increase of 12 whims and pulleys and 1 water-wheel. The value of mining plant shows a decrease of £29,908.

A portion of the area which in 1866 formed the mining district of Beechworth, having in 1867 been proclaimed a separate mining district named Gipps Land, comparisons between the returns for Beechworth and Gipps Land for 1867. There is, then, for the total area comprising the two districts a decrease in the number of steam engines used in alluvial mining of 3 and 46 horse-power. There is an increase of 22 puddling machines, 56 water-wheels, and 337 pumps. In quartz mining machinery there is an increase of 19 steam engines, 188 stamp heads, 8 whims and pulleys, and 6 water-wheels; but a decrease of 24 in the aggregate horse-power of the steam engines. The value of the mining plant, as compared with last year, shows a decrease of £1,693.

In the Sandhurst District there is an increase of 1 in the number of steam engines used in alluvial mining, 87 in the horse-power, and 33 stamp heads. There is a decrease of 112 in the number of puddling machines. In machinery used for quartz mining there is a decrease of 1 steam engine and 13 stamp heads, but an increase of 176 horse-power, 7 crushing machines, 149 whims and pulleys, and 1 water-wheel. The increase in the value of mining plant, as compared with last year, is £23,700.

In the Maryborough District there is a decrease of 10 in the number of steam engines employed in alluvial mining, and 90 horse-power. There is a decrease of 168 puddling machines and 96 whims and pulleys. There is an increase of 18 stamp heads and 2 boring machines. In the machinery used for quartz mining the number of steam engines is increased by 12, and the horse-

power by 271. There is an increase of 3 crushing machines, 23 whims and pulleys, and 8 whips. In the number of stamp heads there is a decrease of 65. The increase in the value of mining plant, as compared with last year, is £15,450.

In the Castlemaine District there is an increase of 5 in the number of steam engines employed in alluvial mining, but a decrease of 40 in the horse-power. The number of puddling machines is decreased by 91. There is an increase of 2 water-wheels, 22 pumps, 10 stamp heads, and 1 boring machine. In machinery used for quartz mining there is a decrease of 2 steam engines and 18 horse-power, and a decrease of 64 stamp heads. There is an increase of 24 crushing machines, 15 whims and pulleys, 3 water-wheels, and 63 whips. The decrease in the value of mining plant in the district, as compared with last year, is £10,779.

In the Ararat District there is an increase in machinery employed in alluvial mining of 20 quicksilver and compound cradles, 19 stamp heads, and 2 boring machines. There is an increase of 4 in the number of steam engines used in quartz mining, and 61 in the horse-power. The number of stamp heads is increased by 60, crushing machines 8, and whims and pulleys 14. The increase in the value of mining plant in the district, as compared with last year, is £13,898.

The total machinery employed on the gold fields, as compared with the returns for 1866, shows a decrease of 10 in the number of steam engines used in alluvial mining, and 118 in the horse-power. There is an increase of 69 whips, 174 quicksilver and compound cradles, 54 water-wheels, 452 stamp heads, and 11 boring machines. There is a decrease of 266 puddling machines, and 80 whims and pulleys. There is an increase of 22 in the number of steam engines employed in quartz mining and 724 in the horse-power, 92 stamp heads, 22 crushing machines, 226 whims and pulleys, 11 water-wheels, and 316 whips. There is an increase in the total value of the mining plant on the gold fields, as compared with 1866, of £10,608.

No. 11.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of BALLARAT during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Quicksilver and Compound Cradles.	Sluices, Toms, and Sluice-boxes.	Pumps.	Stamp-heads.	Boring Machines.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp-heads.	Whims and Pulleys.	Water-wheels.	Whips.	
	Total Number.	Aggregate Horse- power.									Total Number.	Aggregate Horse- power.						
Central Division ...	135	4,006	244	36	...	...	14	...	15	4	27	656	1	286	6	...	...	£ 408,210
Southern Division ...	12	252	54	4	11	...	2	4	...	3	8	158	...	90	6	...	2	29,100
Buninyong Division ...	36	697	50	22	...	1	17	...	...	2	11	211	...	76	...	...	1	60,000
Smythesdale Division ...	70	1,332	50	29	...	9	65	1	10	1	5	114	...	30	...	...	...	30,000
Creswick Division ...	24	448	170	13	2	1	1,312	...	18	1	22	694	3	174	3	1	...	102,000
Gordon Subdivision ...	1	8	8	...	1	...	...	...	...	...	1	25	...	23	1	...	1	2,600
Steiglitz Subdivision ...	1	16	1	...	...	...	92	...	...	...	18	395	...	142	5	...	3	48,000
Blackwood Division ...	1	15	2	1	...	...	1,260	27	15	...	10	154	1	174	9	11	3	33,855
Blue Mountain South Subdivision ... }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10
Totals ...	280	6,774	579	105	14	11	2,762	32	58	11	102	2,407	5	995	30	12	10	713,775

No. 12.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of BEECHWORTH during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.	
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Quicksilver and Compound Cradles.	Sluices, Toms, and Sluice-boxes.	Water- wheels.	Hydraulic Hoses.	Pumps.	Boring Machines.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp- heads.	Whims and Pulleys.	Water- wheels.		Whips.
	Total Number.	Aggregate Horse- power.										Total Number.	Aggregate Horse- power.						
Beechworth Subdivision ...	21	146	5	14	5	...	3,200	37	...	55	...	3	34	...	37	...	3	...	£ 35,000
Stanley Subdivision ...	...	...	11	...	...	...	1,205	...	1	...	...	1	18	...	8	1	...	...	5,180
Yackandandah Subdivision ...	...	...	...	...	...	...	3,000	35	...	35	...	3	65	...	57	...	2	...	11,000
Sandy Creek Subdivision...	...	...	...	...	...	...	...	4	...	4	...	...	...	...	...	...	...	...	850
Indigo Division ...	12	262	42	10	38	...	42	...	16	1	4	...	50	...	40	1	...	4	29,377
Buckland Division ...	8	111	...	...	...	...	2,412	58	3	56	...	11	120	1	200	...	12	...	30,700
Jamieson North Subdivi- sion ...	...	...	1	...	...	...	300	...	...	...	...	2	20	...	22	...	...	...	8,000
Gaffney's Creek Subdivi- sion ...	...	...	...	...	...	...	400	...	...	50	...	6	56	...	140	...	10	...	30,000
Wood's Point Subdivision ...	...	...	...	...	...	2	375	35	...	30	...	10	157	...	281	5	14	2	68,000
Big River Subdivision ...	...	...	...	...	...	...	500	...	...	...	...	3	38	...	43	...	2	...	12,000
Mitta-mitta Division ...	...	...	18	...	...	...	2,000	...	...	18	...	...	...	...	...	...	...	...	2,500
Jamieson South Subdivi- sion ...	...	...	...	...	...	...	200	...	...	3	...	2	45	...	47	...	1	...	14,000
Totals ...	41	519	77	24	43	2	13,634	169	4	267	1	45	603	1	875	7	45	6	246,607

No. 13.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of SANDHURST during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.			ALLUVIAL MINING.							QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.
			Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Sluices, Toms, and Sluice-boxes.	Stamp-heads.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp-heads.	Whims and Pulleys.	Water-wheels.	Whips.	
			Total Number.	Aggregate Horse-power.						Total Number.	Aggregate Horse-power.						
Sandhurst Division	...	...	33	486	350	20	70	100	298	98	2034	2	1012	150	...	200	£ 358,100
Kilmore Division	...	...	...	...	3	...	...	40	...	7	100	2	36	1	1	1	10,500
Heathcote Division and Waranga } South Subdivision	...	...	...	...	51	...	2	45	...	16	297	3	113	14	...	13	25,100
Waranga North Subdivision	...	...	...	...	55	...	...	...	...	10	165	...	95	12	...	17	15,200
Raywood Division	...	...	...	...	30	...	...	...	...	6	90	...	64	...	...	2	12,250
Totals	...	...	33	486	489	20	72	185	298	137	2686	7	1320	177	1	233	421,150

No. 14.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of MARYBOROUGH during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				ALLUVIAL MINING.										QUARTZ MINING.						Approximate Value of all Mining Plant in the Division or Subdivision.	
				Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Quicksilver and Compound Cradles.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Stamp-heads.	Boring Machines.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp-heads.	Whims and Pulleys.		Whips.
				Total Number.	Aggregate Horse-power.										Total Number.	Aggregate Horse-power.					
Maryborough Division	...	...	16	281	110	32	4	27	16	...	...	...	...	15	400	...	166	13	6	£ 70,000
Amherst Division	...	...	9	182	186	50	4	36	150	2	...	...	...	6	84	...	46	10	7	32,960
Avoca Subdivision	...	...	7	172	38	2	1	3	...	...	...	...	2	2	24	...	20	...	...	12,000
Dunolly Division	...	...	4	40	91	19	...	...	...	...	...	12	...	27	406	2	178	28	9	46,000
Korong Division	...	...	1	20	70	...	...	...	...	...	...	...	...	18	281	...	133	1	4	30,000
Redbank and St. Arnaud South Subdivision	...	...	...	...	16	2	...	...	...	...	...	...	...	5	79	2	35	2	...	2,000
St. Arnaud North Subdivision	...	...	1	8	13	...	...	...	14	...	9	6	...	9	148	5	78	14	11	18,540
Totals	...	...	38	703	524	105	9	66	180	2	9	18	2	82	1422	9	656	68	37	211,500

No. 15.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of CASTLEMAINE during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.		ALLUVIAL MINING.										QUARTZ MINING.						Approximate Value of all Mining Plant in the Division or Subdivision.			
		Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.		Whips.	Quicksilver and Compound Cradles.	Sluices, Toms, and Sluice-boxes.	Water-wheels.	Pumps.	Stamp-heads.	Boring Machines.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp-heads.		Whims and Pulleys.	Water-wheels.	Whips.
		Total Number.	Aggregate Horse-power.		Total Number.	Aggregate Horse-power.															
Castlemaine Division	...	6	127	193	7	1	104	145	...	23	36	...	24	410	...	234	24	...	42	£ 54,430	
Fryer's Creek Subdivision	...	10	183	142	6	14	3	260	3	71	78	...	8	96	...	58	4	...	9	41,700	
Hepburn Division	...	21	392	86	33	...	...	66	...	...	40	1	29	456	...	236	41	3	15	44,975
Taradale Subdivision	...	9	199	18	14	...	...	4	...	1	12	...	4	42	...	30	1	1	...	12,880
Maldon Division	...	3	28	72	...	5	...	15	3	...	16	...	30	652	25	247	70	...	11	78,260	
St. Andrew's Division	...	...	...	5	...	...	...	...	2	...	...	...	4	38	1	28	...	1	...	3,500
Kyneton Subdivision	...	1	20	3	3	...	...	2	...	...	...	...	4	85	...	62	4	...	...	12,000
Blue Mountain North Sub-division	...	3	28	...	1	3	...	5	...	...	6	...	4	60	...	24	2	...	4	7,060
Totals	...	53	977	519	64	23	107	497	8	95	188	1	107	1,839	26	919	146	5	81	254,805	

No. 16.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of ARARAT during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS.	ALLUVIAL MINING.										QUARTZ MINING.						Approximate Value of all Mining Plant in the Divisions.
	Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Whims and Pulleys.	Whips.	Quicksilver and Compound Cradles.	Sluices, Toms, and Sluice-boxes.	Pumps.	Stamp-heads.	Boring Machines.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp-heads.	Whims and Pulleys.	Whips.	
	Total Number.	Aggregate Horse-power.									Total Number.	Aggregate Horse-power.					
Ararat Division ...	6	150	7	...	...	...	7	2	14	2	13	192	1	82	7	...	£ 31,198
Pleasant Creek Division ...	5	78	4	3	5	20	71	...	63	...	14	387	7	224	27	3	65,000
Raglan Division ...	12	152	43	8	1	...	13	...	8	...	...	...	...	...	...	...	10,500
Barkly Division ...	2	24	26	3	1	8	98	...	12	...	...	...	...	...	...	...	3,860
Totals ...	25	404	80	14	7	28	189	2	97	2	27	579	8	306	34	3	110,558

No. 17.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of GIPPS LAND during the Quarter ending 31st December, 1867.

MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				ALLUVIAL MINING.						QUARTZ MINING.						Approximate Value of all Mining Plant in the Division or Subdivision.		
				Steam Engines employed in Winding, Pumping, &c.		Puddling Machines.	Sluices, Toms, and Sluice-boxes.	Water-wheels.	Hydraulic Hoses.	Pumps.	Steam Engines employed in Winding, Crushing, &c.		Crushing Machines.	Stamp-heads.	Whims and Pulleys.		Water-wheels.	Whips.
				Total Number.	Aggregate Horse-power.						Total Number.	Aggregate Horse-power.						
Omeo Subdivision	...	...	...	...	1,000	...	...	50	1	17	...	15	...	...	...	...	\$ 5,000
Mitchell River Subdivision	...	...	...	2	300	...	...	100	2	27	...	21	1	...	1	...	5,500
Crooked River Subdivision	...	...	...	...	500	30	2	35	10	119	1	114	...	4	...	...	44,200
Jericho Subdivision	...	...	...	20	270	...	...	20	5	70	...	92	...	5	...	...	24,500
Donnelly's Creek Subdivision	...	...	...	...	...	...	...	...	5	76	...	61	...	1	...	...	21,500
Stringer's Creek Subdivision	...	...	...	...	...	...	...	...	9	110	...	155	...	3	...	...	20,000
Russell's Creek Subdivision	...	...	...	3	75	...	...	12	...	...	...	...	...	...	...	...	100
South Tarraville Subdivision	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	...	...	...	25	2,145	30	2	217	32	419	1	458	1	13	1	...	120,800

No. 18.**SUMMARY.**

NUMBER of DISTINCT QUARTZ REEFS actually proved to be AURIFEROUS, and the TOTAL EXTENT in Square Miles of AURIFEROUS ALLUVIAL and QUARTZ GROUND actually worked upon in the several MINING DISTRICTS.

MINING DISTRICTS.						Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District ...	...	...	...	...	...	155	69
Beechworth District ...	...	...	...	...	...	475	151 $\frac{3}{4}$
Sandhurst District ...	...	...	...	...	...	453	219
Maryborough District ...	...	...	...	...	...	470	80 $\frac{1}{2}$
Castlemaine District ...	...	...	...	...	...	363	185
Ararat District ...	...	...	...	...	...	51	64 $\frac{1}{4}$
Gipps Land District ...	...	...	...	...	...	414	99
Totals ...	...	...	...	...	...	2,381	868 $\frac{1}{4}$

NOTE.—The number of "distinct" quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored it is found, too, that what were supposed to be separate reefs are not really distinct.

No. 19.

TABLE showing the NUMBER of DISTINCT QUARTZ REEFS actually proved to be AURIFEROUS, and the TOTAL EXTENT, in Square Miles, of AURIFEROUS ALLUVIAL and QUARTZ GROUND actually worked upon, in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT	Central Division	22	7	
	Southern Division	7	6	
	Buninyong Division	12	14	
	Smythesdale Division	10	11	
	Creswick Division	14	8½	
	Gordon Subdivision	17	2½	
	Steiglitz Subdivision	54	14½	
	Blackwood Division	16	2½	
	Blue Mountain South Subdivision	3	3	
	Totals	155	69	
BEECHWORTH	Beechworth Subdivision	48	24	
	Stanley Subdivision	23	12½	
	Yackandandah Subdivision	60	9	
	Sandy Creek Subdivision ... ..	...	2
	Indigo Division	17	2½	
	Buckland Division	181	59	
	Jamieson North Subdivision	16	11	
	Gaffney's Creek Subdivision	13	3	
	Wood's Point Subdivision	91	18	
	Big River Subdivision	8	2½	
	Mitta-mitta Division	3	2½	
	Jamieson South Subdivision	15	6	
	Totals	475	151½	
SANDHURST	Sandhurst Division	140	14	Mr. Meagher, the former Mining Registrar, estimated the area of auriferous ground as here set down; but Mr. Osborn, the present Registrar, estimates it at 25 square miles only.
	Kilmore Division	77	60	
	Heathcote Division and Waranga South Subdivision	115	80	
	Waranga North Subdivision	86	9	
	Raywood Division	35	56	
	Totals	453	219	
MARYBOROUGH	Maryborough Division	105	5	Mr. Couchman, the former Mining Registrar, estimated the area of auriferous ground as here set down; but his successor, Mr. Mason, estimates it at 10 square miles only.
	Amherst Division	45	5½	
	Avoca Subdivision	8	8	
	Dunolly Division	169	16	
	Korong Division	62	30	
	Redbank and St. Arnaud South Subdivisions	30	9½	
	St. Arnaud North Subdivision	51	6½	
	Totals	470	80½	
CASTLEMAINE	Castlemaine Division	90	9	
	Fryer's Creek Subdivision	29	28½	
	Hepburn Division	85	82	
	Taradale Subdivision	19	15	
	Maldon Division	74	9½	
	St. Andrew's Division	51	26½	
	Kyneton Subdivision	10	7	
	Blue Mountain North Subdivision	5	7½	
	Totals	363	185	
ARARAT ...	Ararat Division	15	33½	
	Pleasant Creek Division	25	12	
	Barkly Division	7	13½	
	Raglan Division	4	5½	
	Totals	51	64½	
GIPPS LAND	Omeo Subdivision	25	8	
	Mitchell River Subdivision	6	2	
	Crooked River Subdivision	332	49½	
	Jericho Subdivision	26	25	
	Donnelly's Creek Subdivision	12	2½	
	Stringer's Creek Subdivision	9	7	
	Russell's Creek Subdivision	4	5	
	South Tarraville Subdivision ... ..	...	...
	Totals	414	99	

No. 20.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ CRUSHED in 1867 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.					Tons Crushed.	Total Produce.		Average Yield per Ton.		
						ozs.	dwt.	ozs.	dwt.	grs.
Ballarat District	...	...	...	...	243,994½	84,249	17	0	6	21·7
Beechworth District	...	...	...	...	113,994½	72,958	3	0	12	19·2
Sandhurst District	...	...	...	...	285,240½	129,699	6	0	9	2·2
Maryborough District	...	...	...	...	86,865½	44,570	1	0	10	6·2
Castlemaine District	...	...	...	...	132,280½	76,174	10	0	11	12·4
Ararat District	...	...	...	...	56,174½	49,760	18	0	17	17·1
Gipps Land District	...	...	...	...	30,300½	41,264	17	1	7	5·6
Totals	...	...	...	...	948,850½	498,677	12	0	10	12·2

NOTE.—The above table does not show the total quantity of quartz crushed in the several localities, but only the yield of certain "crushings," respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving information, it is impossible to get complete returns from every district, and in considering the relative importance of each district, as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the statistics, information has been obtained concerning 4,925,440½/20 tons which have been crushed, which yielded an average of 11 dwt. 16·14 grs. per ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ CRUSHED in 1867 in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Tons Crushed.	Total Produce.		Average Yield per Ton.			Remarks.
						ozs.	dwt.	ozs.	dwt.	grs.	
BALLARAT	...	Central Division	72,025	14,434	13	0	4	0·1	None reported.
		Southern Division	...	...	2,300	378	4	0	3	6·9
		Buninyong Division	...	...	30,366½	5,501	17	0	3	14·9
		Smythesdale Division	...	...	2,101	438	17	0	4	4·2
		Creswick Division	...	...	91,121	41,760	7	0	9	3·9
		Gordon Subdivision	...	...	8,805	3,906	15	0	8	20·9
		Steiglitz Subdivision	...	...	8,163	10,750	15	1	6	8·1
		Blackwood Division	...	...	29,113	7,078	9	0	4	20·7
		Blue Mountain South Subdivision	...	...	...	...	...	...	...	...
		Totals	243,994½	84,249	17	0	6	21·7	
BEECHWORTH	...	Beechworth Subdivision	1,811	2,452	0	1	7	1·8	None reported.
		Stanley Subdivision	...	...	1,223	972	7	0	15	21·6
		Yackandandah Subdivision	...	...	15,513	10,503	12	0	13	13·0
		Sandy Creek Subdivision	...	...	...	...	...	...	...	...
		Indigo Division	...	...	4,853½	1,538	9	0	6	8·1
		Buckland Division	30,901	13,101	12	0	8	11·5	None reported.
		Jamieson North Subdivision	...	...	3,462½	10,507	10	3	0	16·5
		Gaffney's Creek Subdivision	...	...	18,505½	9,430	8	0	10	4·6
		Wood's Point Subdivision	...	...	36,326½	23,364	18	0	12	20·7
		Big River Subdivision	...	...	1,290	609	2	0	9	10·6
		Mitta-mitta Division	None reported.
		Jamieson South Subdivision *	...	...	108	478	5	4	8	13·5
		Totals	113,994½	72,958	3	0	12	19·2	
SANDHURST	...	Sandhurst Division	237,856	104,862	18	0	8	19·6	
		Kilmore Division	...	...	2,184	3,041	6	1	7	20·4
		Heathcote Division and Waranga South Subdivision	...	...	15,941	5,880	1	0	7	9·0
		Waranga North Subdivision	...	...	14,760	9,221	18	0	12	11·9
		Raywood Division	...	...	14,499½	6,693	3	0	9	5·5
		Totals	285,240½	129,699	6	0	9	2·2	

* Jamieson South Subdivision.—This is for three months only; during the first nine months of the year Jamieson North and Jamieson South formed together the subdivision of Jamieson, and the returns for both up to 30th September, 1867, are included under Jamieson North.

No. 21.—TABLE showing the AVERAGE YIELD of GOLD, &c.—*continued.*

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
MARYBOROUGH	Maryborough Division	31,732	12,310 2	0 7 18·2	
	Amherst Division	5,973	1,810 19	0 6 1·5	
	Avoca Subdivision	871	491 12	0 11 6·9	
	Dunolly Division	21,756	13,490 14	0 12 9·6	
	Korong Division	19,558	11,091 18	0 11 8·2	
	Redbank and St. Arnaud South Subdivisions	679	391 0	0 11 12·4	
	St. Arnaud North Subdivision ...	6,296 $\frac{1}{2}$	4,983 16	0 15 19·9	
	Totals	86,865 $\frac{1}{2}$	44,570 1	0 10 6·2	
CASTLEMAINE...	Castlemaine Division	28,712 $\frac{1}{2}$	12,967 9	0 9 0·7	
	Fryer's Creek Subdivision	13,808	3,768 9	0 5 11·0	
	Hepburn Division	38,887 $\frac{1}{2}$	11,854 19	0 6 2·3	
	Taradale Subdivision	631	464 5	0 14 17·2	
	Maldon Division	31,239	41,126 17	1 6 7·9	
	St. Andrew's Division	1,025	1,967 15	1 18 9·4	
	Kyneton Subdivision	17,519	3,846 8	0 4 9·3	
	Blue Mountain North Subdivision	458 $\frac{1}{2}$	178 8	0 7 18·7	
	Totals	132,280 $\frac{1}{2}$	76,174 10	0 11 12·4	
ARARAT	Ararat Division	16,269 $\frac{1}{2}$	12,651 8	0 15 13·2	
	Pleasant Creek Division	39,905	37,109 10	0 18 14·3	
	Barkly Division ... ..	...	...	...	None reported.
	Raglan Division ... ..	...	...	...	None reported.
	Totals	56,174 $\frac{1}{2}$	49,760 18	0 17 17·1	
GIPPS LAND	Omeo Subdivision	198	154 14	0 15 15·0	
	Mitchell River Subdivision	1,783	715 16	0 8 0·6	
	Crooked River Subdivision	5 680	6,972 4	1 4 13·1	
	Jericho Subdivision	2,762	1,733 8	0 12 13·2	
	Donnelly's Creek Subdivision	3,775	1,300 16	0 6 21·3	
	Stringer's Creek Subdivision	16,102 $\frac{1}{2}$	30,387 19	1 17 17·8	
	Russell's Creek Subdivision ... ..	...	...	...	None reported.
	South Tarraville Subdivision ...	...	...	...	None reported.
	Totals	30,300 $\frac{1}{2}$	41,264 17	1 7 5·6	

No. 22.

SUMMARY.

AVERAGE YIELD OF GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., CRUSHED in 1867 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	Tons Crushed.	Total Produce.	Average Yield per Ton.
		ozs. dwts.	ozs. dwts. grs.
Ballarat District	8,452	1,133 19	0 2 16·3
Beechworth District	771	208 8	0 5 9·7
Sandhurst District	93,685	17,423 7	0 3 17·2
Maryborough District	16,233	2,504 15	0 3 2
Castlemaine District	52,476 $\frac{1}{2}$	8,901 15	0 3 9·4
Ararat District	27,675	7,627 11	0 5 12·2
Gipps Land District	445	69 12	0 3 3
Totals	199,737 $\frac{1}{2}$	37,869 7	0 3 19

NOTE.—During 1864, 1865, 1866, and 1867, 798,026 tons 2 cwt. of quartz tailings, &c., were crushed, and yielded 172,252 ozs. 16 dwts. of gold, being an average of 4 dwts. 7·6 grs. per ton.

No. 23.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., CRUSHED in 1867 in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
			ozs. dwts.	ozs. dwts. grs.	
BALLARAT ...	Central Division	5,270	473 0	0 1 19.0	None reported.
	Southern Division	1,642	165 6	0 2 0.3	
	Buninyong Division	None reported.
	Smythesdale Division	None reported.
	Creswick Division	1,540	495 13	0 6 10.4	None reported.
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision ... ..	...	...	...
	Blackwood Division ... ..	...	...	...
	Blue Mountain South Subdivision	None reported.
	Totals	8,452	1,133 19	0 2 16.3	
BEECHWORTH ...	Beechworth Subdivision	242	29 11	0 2 10.6	None reported.
	Stanley Subdivision	51	4 2	0 1 14.5	
	Yackandandah Subdivision	77	11 0	0 2 20.5	
	Sandy Creek Subdivision	None reported.
	Indigo Division	None reported.
	Buckland Division	132	36 4	0 5 11.6	None reported.
	Jamieson North Subdivision	119	33 16	0 5 16.3	
	Gaffney's Creek Subdivision ... ..	...	...	...
	Wood's Point Subdivision	150	93 15	0 12 12.0	None reported.
	Big River Subdivision ... ..	...	...	...
	Mitta-mitta Division ... ..	...	...	...
	Jamieson South Subdivision	
	Totals	771	208 8	0 5 9.7	
SANDHURST ...	Sandhurst Division	85,734	16,167 5	0 3 18.5	
	Kilmore Division	2,426	443 11	0 3 15.7	
	Heathcote Division and Waranga South Subdivision	981	86 2	0 1 18.1	
	Waranga North Subdivision	4,136	684 9	0 3 7.4	
	Raywood Division	408	42 0	0 2 1.4	
	Totals	93,685	17,423 7	0 3 17.2	
MARYBOROUGH	Maryborough Division	None reported.
	Amherst Division	858	181 0	0 4 5.2	
	Avoca Subdivision	1,820	236 0	0 2 14.2	
	Dunolly Division	6,885	1,416 0	0 4 2.7	
	Korong Division	4,498	389 12	0 1 17.5	
	Redbank and St. Arnaud South Subdivisions	500	59 0	0 2 8.6	
	St. Arnaud North Subdivision	1,672	223 3	0 2 16.0	
	Totals	16,233	2,504 15	0 3 2.0	
CASTLEMAINE	Castlemaine Division	None reported.
	Fryer's Creek Subdivision	33,966	6,760 7	0 3 23.5	
	Hepburn Division	7,268½	1,260 7	0 3 11.2	
	Taradale Subdivision	2,783	297 5	0 2 3.2	None reported.
	Maldon Division	8,398	579 0	0 1 9.0	
	St. Andrew's Division	61	4 16	0 1 13.7	
	Kyneton Subdivision	None reported.
	Blue Mountain North Subdivision	None reported.
	Totals	52,476½	8,901 15	0 3 9.4	
ARARAT ...	Ararat Division	None reported.
	Pleasant Creek Division	20,433	4,869 3	0 4 18.3	
	Barkly Division	6,542	2,723 8	0 8 7.8	
	Raglan Division	700	35 0	0 1 0.0	
	Totals	27,675	7,627 11	0 5 12.2	
GIPPS LAND ...	Omeo Subdivision	None reported.
	Mitchell River Subdivision ... ..	...	...	...
	Crooked River Subdivision	445	69 12	0 3 3.0	None reported.
	Jericho Subdivision ... ..	...	...	...
	Donnelly's Creek Subdivision ... ..	...	...	...
	Stringer's Creek Subdivision ... ..	...	...	...
	Russell's Creek Subdivision ... ..	...	...	...
	South Tarraville Subdivision	None reported.
	Totals	445	69 12	0 3 3.0	

No. 24.

SUMMARY.

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ending 31st December, 1867.

MINING DISTRICTS.						From			To		
						£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	...	0	4	0	1	0	0
Beechworth District	...	...	...	...	...	0	10	0	1	10	0
Sandhurst District	...	...	...	...	...	0	5	6	1	0	0
Maryborough District	...	...	...	...	...	0	5	0	0	12	0
Castlemaine District	...	...	...	...	...	0	4	0	0	19	0
Ararat District	...	...	...	...	...	0	6	0	0	13	0
Gipps Land District	...	...	...	...	...	0	10	0	1	10	0
Lowest and Highest Prices						0	4	0	1	10	0

No. 25.

SUMMARY.

PRICE of GOLD per Ounce in the several MINING DISTRICTS during the Quarter ending 31st December, 1867.

MINING DISTRICTS.						From			To		
						£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	...	3	16	0	4	1	6
Beechworth District	...	...	...	...	...	3	0	0	4	1	0
Sandhurst District	...	...	...	...	...	3	15	0	4	0	0
Maryborough District	...	...	...	...	...	3	17	0	4	1	0
Castlemaine District	...	...	...	...	...	3	15	6	4	0	0
Ararat District	...	...	...	...	...	3	11	6	4	0	0
Gipps Land District	...	...	...	...	...	3	0	0	3	19	0
Lowest and Highest Prices						3	0	0	4	1	6

No. 26.

QUANTITY of GOLD EXPORTED during the Year 1867, as returned by the Customs Department.

1,433,687 ozs. 6 dwts.

NOTE.—In addition to the above, 301,346 ozs. 14 dwts. New Zealand gold have been shipped from this colony during the year.

No. 27.

RETURN showing approximately the GOLD obtained from QUARTZ VEINS and ALLUVIAL WORKINGS during the Year 1867.

						OZS.	
From Quartz Veins...	...	...	...	...	...	560,527	
From Alluvial Workings	...	...	...	...	...	873,160 ⁶ / ₂₀	
Total Gold Exported						1,433,687 ⁶ / ₂₀	

NOTE.—The above results are but rough approximations. The Mining Surveyors and Registrars can furnish only estimates based on information afforded by the Banks and gold-buyers, and on their own knowledge of the character of the workings in their districts. The check on the returns—and not a sufficient one—is that afforded by the returns of quartz and quartz tailings crushed, which, however, cannot, and do not, comprise information respecting all the vein-stuff put through the mills.

No. 28.

RETURN of the NUMBER of GOLD MINING LEASES in force on the 31st December, 1867, together with the EXTENT of GROUND LEASED, and the PROPOSED CAPITAL to be employed in working the said ground.

MINING DISTRICTS.					Number of Leases.	Extent.			Total Capital Proposed.
						a.	r.	p.	£
Ballarat District	...	...	...	...	44	2,282	1	20	229,100
Beechworth District	...	...	...	...	111	1,453	0	34	647,450
Sandhurst District	...	...	...	...	468	2,960	0	30	803,300
Maryborough District	...	...	...	...	197	2,026	3	15	449,750
Castlemaine District	...	...	...	...	111	1,043	0	4	577,531
Ararat District	...	...	...	...	46	1,088	0	7	101,450
Gipps Land District	...	...	...	...	70	992	3	14	385,700
Totals	...	...	...	...	1,047	11,846	2	4	3,194,281

NOTE.—The total number of Gold Mining Leases granted since the commencement is 3,188, containing 52,739a. Or. 36p. The above table shows those only which were actually in force on the 31st December, 1867.

No. 29.

RETURN of the NUMBER of GOLD MINING LEASES issued in the Year 1867, together with the EXTENT of GROUND LEASED, and the PROPOSED CAPITAL to be employed in working the said ground.

MINING DISTRICTS.					Number of Leases.	Extent.			Total Capital Proposed.
						a.	r.	p.	£
Ballarat District	...	...	...	...	17	1,460	2	35	106,100
Beechworth District	...	...	...	...	52	565	2	18	251,950
Sandhurst District	...	...	...	...	85	644	1	2	148,785
Maryborough District	...	...	...	...	68	1,128	3	5	169,900
Castlemaine District	...	...	...	...	23	224	3	11	155,200
Ararat District	...	...	...	...	33	972	2	18	69,250
Gipps Land District	...	...	...	...	55	741	2	38	264,985
Totals	...	...	...	...	333	5,738	2	7	1,166,170

No. 30.**SUMMARY.**

AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same protected by Registration or by Exemption Certificates, in the several MINING DISTRICTS on the 31st December, 1867.

MINING DISTRICTS.					Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked, being protected by Certificates.		
					a.	r.	p.	a.	r.	p.
Ballarat District	...	...	...	...	20,877	1	25	3,210	0	14
Beechworth District	...	...	...	...	25,834	1	7	8,350	2	5
Sandhurst District	...	...	...	...	4,129	0	0	293	0	3
Maryborough District	...	...	...	...	4,672	2	19	261	3	0
Castlemaine District	...	...	...	...	6,066	1	29	366	0	23
Ararat District	...	...	...	...	7,038	0	0	270	0	0
Gipps Land District	...	...	...	...	7,060	0	36	854	2	0
Totals	...	...	...	...	75,677	3	36	13,606	0	5

No. 31.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same not being worked, being protected by Registration or by Exemption Certificates, in the several DIVISIONS and SUBDIVISIONS, on the 31st December, 1867.

MINING DISTRICTS.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.				Total Area of Land held as Claims under the Bye-laws.	Aggregate Area of Ground not being worked, being protected by Certificates.
					a. r. p.	a. r. p.
BALLARAT	{	Central Division	...	...	6,250 2 14	2,126 1 30
		Southern Division	...	...	1,588 0 0	54 0 0
		Buninyong Division	...	...	2,884 0 0	72 3 18
		Smythesdale Division	...	...	6,331 0 0	186 3 33
		Creswick Division	...	...	2,366 0 0	439 2 0
		Gordon Subdivision	...	...	262 0 29	4 2 0
		Steiglitz Subdivision	...	...	659 1 9	265 3 32
		Blackwood Division	...	...	536 1 13	59 3 21
		Blue Mountain South Subdivision	...	...	...	...
		Totals	...	...	20,877 1 25	3,210 0 14
BEECHWORTH	{	Beechworth Subdivision	...	...	5,328 0 0	324 0 0
		Stanley Subdivision	...	...	548 0 0	...
		Yackandandah Subdivision	...	...	2,200 0 0	45 0 0
		Sandy Creek Subdivision	...	...	1,280 0 0	...
		Indigo Division	...	...	12,708 0 0	7,193 0 0
		Buckland Division	...	...	1,670 1 7	681 2 5
		Jamieson North Subdivision	...	...	830 0 0	30 0 0
		Gaffney's Creek Subdivision	...	...	270 0 0	16 0 0
		Wood's Point Subdivision	...	...	320 0 0	11 0 0
		Big River Subdivision	...	...	150 0 0	6 0 0
		Mitta-mitta Division	...	...	400 0 0	40 0 0
		Jamieson South Subdivision	...	...	130 0 0	4 0 0
		Totals	...	...	25,834 1 7	8,350 2 5
SANDHURST	{	Sandhurst Division	...	...	2,500 0 0	170 0 0
		Kilmore Division	...	...	600 0 0	2 1 39
		Heathcote Division and Waranga South Subdivision	...	...	600 0 0	21 0 4
		Waranga North Subdivision	...	...	310 0 0	77 2 0
		Raywood Division	...	...	119 0 0	22 0 0
		Totals	...	...	4,129 0 0	293 0 3
MARYBOROUGH	{	Maryborough Division	...	...	3,200 0 0	100 0 0
		Amherst Division	...	...	342 3 36	15 1 12
		Avoca Subdivision	...	...	70 0 0	11 1 24
		Dunolly Division	...	...	440 0 0	59 0 19
		Korong Division	...	...	402 0 0	29 0 0
		Redbank and St. Arnaud South Subdivisions	...	...	50 0 0	...
		St. Arnaud North Subdivision	...	...	167 2 23	46 3 25
		Totals	...	...	4,672 2 19	261 3 0
CASTLEMAINE	{	Castlemaine Division	...	...	1,330 0 0	80 3 31
		Fryer's Creek Subdivision	...	...	1,008 0 0	78 0 0
		Hepburn Division	...	...	3,000 0 0	75 0 14
		Taradale Subdivision	...	...	63 0 0	5 1 0
		Maldon Division	...	...	472 1 16	94 0 0
		St. Andrew's Division	...	...	122 1 13	6 1 18
		Kyneton Subdivision	...	...	14 0 0	6 0 0
		Blue Mountain North Subdivision	...	...	56 3 0	20 2 0
		Totals	...	...	6,066 1 29	366 0 23
ARARAT ...	{	Ararat Division	...	...	5,821 0 0	...
		Pleasant Creek Division	...	...	934 0 0	270 0 0
		Barkly Division	...	...	180 0 0	...
		Raglan Division	...	...	103 0 0	...
		Totals	...	...	7,038 0 0	270 0 0
GIPPS LAND	{	Omeo Subdivision	...	...	370 0 0	2 0 0
		Mitchell River Subdivision	...	...	470 0 0	22 0 0
		Crooked River Subdivision	...	...	4,250 0 0	800 0 0
		Jericho Subdivision	...	...	300 0 0	6 0 0
		Donnelly's Creek Subdivision	...	...	35 2 0	12 0 0
		Stringer's Creek Subdivision	...	...	1,301 2 0	12 2 0
		Russell's Creek Subdivision	...	...	310 2 0	...
		South Tarraville Subdivision	...	...	22 2 36	...
		Totals	...	...	7,060 0 36	854 2 0

No. 32.

SUMMARY.

ESTIMATED VALUE of the CLAIMS in the several MINING DISTRICTS on the 31st December, 1867.

MINING DISTRICTS.						Estimated Value of Claims.
						£
Ballarat District	...	...	...	...	...	1,803,190
Beechworth District	...	...	...	...	...	1,784,360
Sandhurst District	...	...	...	...	...	1,507,100
Maryborough District	...	...	...	...	...	878,118
Castlemaine District	...	...	...	...	...	756,076
Ararat District	...	...	...	...	...	451,738
Gipps Land District	...	...	...	...	...	280,630
Totals	...	...	...	...	...	7,461,212

No. 33.

TABLE showing the ESTIMATED VALUE of the MINING CLAIMS in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT on the 31st December, 1867.

MINING DISTRICTS.			MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.							Value of Claims.
										£
BALLARAT	...	...	Central Division	...	...	...	...	...	...	1,204,290
			Southern Division	...	...	...	...	...	...	33,500
			Buninyong Division	...	...	...	...	...	...	250,000
			Smythesdale Division	...	...	...	...	...	...	55,000
			Creswick Division	...	...	...	...	...	...	176,000
			Gordon Subdivision	...	...	...	...	...	...	2,500
			Steiglitz Subdivision	...	...	...	...	...	...	54,650
			Blackwood Division	...	...	...	...	...	...	27,000
			Blue Mountain South Subdivision	...	...	...	...	...	...	250
			Totals							1,803,190
BEECHWORTH	...	...	Beechworth Subdivision	...	...	...	...	...	...	400,000
			Stanley Subdivision	...	...	...	...	...	...	11,760
			Yackandandah Subdivision	...	...	...	...	...	...	840,000
			Sandy Creek Subdivision	...	...	...	...	...	...	2,500
			Indigo Division	...	...	...	...	...	...	51,800
			Buckland Division	...	...	...	...	...	...	47,800
			Jamieson North Subdivision	...	...	...	...	...	...	155,000
			Gaffney's Creek Subdivision	...	...	...	...	...	...	45,000
			Wood's Point Subdivision	...	...	...	...	...	...	175,000
			Big River Subdivision	...	...	...	...	...	...	10,000
			Mitta-mitta Subdivision	...	...	...	...	...	...	10,500
Jamieson South Subdivision	...	...	...	...	...	...	35,000			
			Totals							1,784,360
SANDHURST	...	...	Sandhurst Division	...	...	...	...	...	...	1,400,000
			Kilmore Division	...	...	...	...	...	...	12,000
			Heathcote Division and Waranga South Subdivision	...	...	...	...	...	...	31,600
			Waranga North Subdivision	...	...	...	...	...	...	37,000
			Raywood Division	...	...	...	...	...	...	26,500
			Totals							1,507,100
MARYBOROUGH	...	...	Maryborough Division	...	...	...	...	...	...	170,000
			Amherst Division	...	...	...	...	...	...	24,818
			Avoca Subdivision	...	...	...	...	...	...	250,000
			Dunolly Division	...	...	...	...	...	...	89,500
			Korong Division	...	...	...	...	...	...	250,000
			Redbank and St. Arnaud South Subdivisions	...	...	...	...	...	...	50,000
St. Arnaud North Subdivision	...	...	...	...	...	...	43,800			
			Totals							878,118
CASTLEMAINE	...	...	Castlemaine Division	...	...	...	...	...	...	71,120
			Fryer's Creek Subdivision	...	...	...	...	...	...	74,760
			Hepburn Division	...	...	...	...	...	...	120,000
			Taradale Subdivision	...	...	...	...	...	...	74,120
			Maldon Division	...	...	...	...	...	...	334,021
			St. Andrew's Division	...	...	...	...	...	...	16,555
			Kyneton Subdivision	...	...	...	...	...	...	45,500
Blue Mountain North Subdivision	...	...	...	...	...	...	20,000			
			Totals							756,076

No. 33.—TABLE showing the ESTIMATED VALUE of MINING CLAIMS, &c.—*continued.*

MINING DISTRICTS.				MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.							Value of Claims.
											£
ARARAT	{	Ararat Division	33,038
				Pleasant Creek Division	375,700	
				Raglan Division	9,000	
				Barkly Division	34,000	
				Totals							...
GIPPS LAND	...	{	Omeo Subdivision	14,000	
			Mitchell River Subdivision	...	...	...	...	...	55,000
			Crooked River Subdivision	...	...	...	...	...	60,000
			Jericho Subdivision	...	...	...	...	...	50,000
			Donnelly's Creek Subdivision	...	...	...	...	...	500
			Stringer's Creek Subdivision	...	...	...	...	...	98,500
			Russell's Creek Subdivision	...	...	...	...	...	2,500
			South Tarraville Subdivision	...	...	...	...	...	130
Totals							280,630	

No. 34.

RETURN of MINERS' RIGHTS and BUSINESS LICENSES issued in VICTORIA during the Year 1867.

PLACE OR DISTRICT WHERE ISSUED.	MINERS' RIGHTS.										BUSINESS LICENSES.			TOTAL RECEIPTS.							
	1 Year at 5s.	2 Years at 10s.	3 Years at 15s.	4 Years at 20s.	5 Years at 25s.	6 Years at 30s.	Consolidated Miners' Rights.			Amount Received.	6 Months at 50s.	Transfers at 10s.	Amount Received.								
							Number.	Representing Single Rights at 5s.	Miners' Rights ante- dated. Fee 5s.												
										£	s.	d.		£	s.	d.		£	s.	d.	
Mining District of Ballarat ...	14,070	...	...	...	...	...	70	4,303	33		£	s.	d.	360	...			£	s.	d.	5,501 10 0
Mining District of Beechworth	7,381	...	...	1	...	...	40	383	3	1,942 15 0				337	1	843 0 0		2,785 15 0			
Mining District of Sandhurst ...	5,924	3	2	4	...	1	1	5	1	1,491 0 0				249	...	622 10 0		2,113 10 0			
Mining District of Maryborough	4,884	...	...	...	...	...	5	60	4	1,237 0 0				113	...	282 10 0		1,519 10 0			
Mining District of Castlemaine	5,081	4	...	5	2	...	13	284	9	1,353 0 0				127	...	317 10 0		1,670 10 0			
Mining District of Ararat ...	1,791	...	1	4	...	...	3	97	...	476 15 0				196	...	490 0 0		966 15 0			
Mining District of Gipps Land	1,372	...	...	2	...	...	23	99	2	370 5 0				43	...	107 10 0		477 15 0			
Melbourne ...	508	...	...	...	...	...	21	80	...	147 0 0				5	...	12 10 0		159 10 0			
Totals ...	41,011	7	3	16	2	1	176	5,311	52	11,619 5 0				1,430	1	3,575 10 0		15,194 15 0			

No. 35.

SUMMARY.

LENGTH of WATER RACES constructed, and their APPROXIMATE COST, in the several MINING DISTRICTS, to 31st December, 1867.

MINING DISTRICTS.				Length of Races.		Approximate Cost.
Ballarat District	...	...	...	miles	chains	£
				275	22	27,209
				962	5	210,969
				36	0	2,208
				280	72	13,187
				252	30	25,419
				129	0	6,830
Gipps Land District	...	...	...	364	55	36,081
Totals	...	...	...	2,300	24	321,903

No. 36.

TABLE showing the LENGTH of WATER RACES constructed, and their APPROXIMATE COST, in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, to 31st December, 1867.

MINING DISTRICT.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.	Length of Races.	Approximate Cost.	Remarks.
		miles chains	£	
BALLARAT ...	Central Division	30 0	780	None constructed.
	Southern Division	2 5	110	
	Buninyong Division	11 0	400	
	Smythesdale Division	2 33	80	
	Creswick Division	108 49	13,535	
	Gordon Subdivision	6 40	169	
	Steiglitz Subdivision	50 0	7,000	
	Blackwood Division	64 55	5,135	
	Blue Mountain South Subdivision	
	Totals	275 22	27,209	
BEECHWORTH ...	Beechworth Subdivision	206 40	64,840	None constructed.
	Stanley Subdivision	121 0	57,210	
	Yackandandah Subdivision	230 0	43,000	
	Sandy Creek Subdivision	3 5	395	
	Indigo Division ^a	12 0	800	
	Buckland Division ^b	160 0	11,470	
	Jamieson North Subdivision	34 0	5,984	
	Gaffney's Creek Subdivision	24 15	4,113	
	Wood's Point Subdivision	17 60	5,250	
	Big River Subdivision	20 0	3,520	
	Mitta-mitta Division	120 0	12,000	
	Jamieson South Subdivision	13 45	2,387	
	Totals	962 5	210,969	
SANDHURST ...	Sandhurst Division	16 0	700	None constructed.
	Kilmore Division	8 0	1,200	
	Heathcote Division and Waranga South Subdivision	4 0	80	
	Waranga North Subdivision ... ..	...	...
	Raywood Division	8 0	228	
	Totals	36 0	2,208	
MARYBOROUGH	Maryborough Division	None constructed.
	Amherst Division	254 0	12,000	None constructed.
	Avoca Subdivision	22 72	687	
	Dunolly Division ... ..	...	...
	Korong Division	None constructed.
	Redbank and St. Arnaud South Subdivisions	None constructed.
	St. Arnaud North Subdivision	4 0	500	
	Totals	280 72	13,187	
CASTLEMAINE..	Castlemaine Division	None constructed.
	Fryer's Creek Subdivision	21 0	3,360	None constructed.
	Hepburn Division ^c	227 8	21,980	
	Taradale Subdivision	None constructed.
	Maldon Division	None constructed.
	St. Andrew's Division	1 0	40	None constructed.
	Kyneton Subdivision ... ..	...	...
	Blue Mountain North Subdivision	3 22	39	
	Totals	252 30	25,419	
ARARAT ...	Ararat Division	None constructed.
	Pleasant Creek Division ^d	10 40	530	
	Barkly Division	1 40	1,520	
	Raglan Division	117 0	4,780	
	Totals	129 0	6,830	
GIPPS LAND ...	Omeo Subdivision ^e	300 0	30,000	None constructed.
	Mitchell River Subdivision	2 40	183	
	Crooked River Subdivision ^f	42 0	1,260	
	Jericho Subdivision	10 60	2,950	
	Donnelly's Creek Subdivision ^g	2 60	950	
	Stringer's Creek Subdivision	2 55	658	
	Russell's Creek Subdivision	4 0	80	
	South Tarraville Subdivision ... ..	...	...
	Totals	364 55	36,081	

(a) The Mining Registrar states that this race has not been used for some time.

(b) In this return a number of temporary branch races are not included; they have not been registered, and are generally abandoned when some small claim is worked out.

(c) The present estimated value of the races in this Division is £10,730.

(d) During the year several miles of races have been abandoned, and are not included in this return.

(e) The high average cost of races arises from the principal ones on Livingstone Creek being constructed at a time when labor was high. Six of them cost on an average £189 per milc. The present cost of cutting races in this Subdivision varies from £20 to £50 per mile.

(f) Many of the races have been abandoned during the year that originally cost a large sum of money, and those which have been registered during that time are small, and have been cut at comparatively trifling expense.

(g) This is exclusive of about five miles of races which have long been abandoned.

No. 37.

RETURN of the NUMBER of WATER-RIGHT LICENSES in force on the 31st December, 1867.

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Capital proposed to be invested.	Annual Rent.
	a. r. p.	miles chains	gallons.	a. r. p.	gallons.	£	£ s. d.
126	1,194 2 23	300 13 ⁵² / ₁₀₀	131,990,000	303 2 17	232,102,092	138,257	989 10 0

No. 38.

THE NUMBER of WATER-RIGHT LICENSES for GOLD MINING purposes issued during the Year 1867 is as follows:—

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Capital proposed to be invested.	Annual Rent.
	a. r. p.	miles chains	gallons.	a. r. p.	gallons.	£	£ s. d.
47	151 3 25	44 9 ⁵⁵ / ₁₀₀	41,121,700	8 2 32	8,586,540	33,485	533 0 0

No. 39.

SUMMARY.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand, during the Year 1867, of sums lodged with the Wardens' Clerks of the several MINING DISTRICTS, as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

MINING DISTRICTS.	Balance on hand on the 31st December, 1866.	Total Deposits received during the Year.	Total Disbursements made during 1867.	Balance on hand 31st December, 1867.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballarat District ...	566 17 3	708 16 0	529 11 6	746 1 9
Beechworth District ...	2,200 17 5 ¹ / ₂	1,126 10 10	1,935 13 9	1,391 14 6 ¹ / ₂
Sandhurst District *	1,432 3 1	1,142 17 7	1,778 6 9	796 13 11
Maryborough District *	720 1 2	1,425 10 2	974 0 5	1,171 10 11
Castlemaine District ...	673 2 1	498 11 11	792 7 7	379 6 5
Ararat District * ...	420 15 6 ¹ / ₂	979 0 9	737 18 7 ¹ / ₂	661 17 8
Gipps Land District ...	1,405 13 7	1,484 7 6	1,677 4 1	1,212 17 0
	7,419 10 2	7,365 14 9	8,425 2 8 ¹ / ₂	6,360 2 2 ¹ / ₂

* See note at foot of detailed statement next following.

No. 40.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand, during the Year 1867, of sums lodged with the Wardens' Clerks of the several DIVISIONS of the MINING DISTRICTS, as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

MINING DISTRICTS.	DIVISIONS.	Balance on hand 1st January, 1867.	Total Deposits received during the Year.	Total Disbursements made during 1867.	Balance on hand 31st December, 1867.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLARAT	Ballarat ...	240 0 2	519 16 0	341 5 7	418 10 7
	Buninyong ...	...	...	...	...
	Smythesdale ...	57 18 0	15 0 0	50 18 0	22 0 0
	Creswick ...	69 4 4	10 0 0	67 5 1	11 19 3
	Gordon ...	...	...	...	...
	Steiglitz ...	159 4 3	90 0 0	48 0 4	201 3 11
	Blackwood ...	40 10 6	59 0 0	17 2 6	82 8 0
	Clunes ...	...	15 0 0	5 0 0	10 0 0
		566 17 3	708 16 0	529 11 6	746 1 9
BEECHWORTH	Beechworth ...	469 4 1	319 4 6	108 1 6	680 7 1
	Yackandandah ...	50 15 11	10 0 0	45 10 2	15 5 9
	Chiltern ...	...	15 0 0	...	15 0 0
	Rutherglen ...	...	...	...	...
	Morse's Creek ...	343 2 9 ¹ / ₂	30 0 0	200 3 4 ¹ / ₂	172 19 5
	Jamieson ...	318 5 9	116 8 6	215 1 3 ¹ / ₂	219 12 11 ¹ / ₂
	Wood's Point ...	1,019 8 11	635 17 10	1,366 17 5	288 9 4
	Benalla ...	...	...	...	...
		2,200 17 5 ¹ / ₂	1,126 10 10	1,935 13 9	1,391 14 6 ¹ / ₂

No. 40.—RECEIPTS, DISBURSEMENTS, and BALANCES in hand, during the Year 1867, of sums lodged with the Wardens' Clerks, &c.—*continued.*

MINING DISTRICTS.	DIVISIONS.	Balance on hand 1st January, 1867.	Total Deposits received during the Year.	Total Disburse- ments made during 1867.	Balance on hand 31st December, 1867.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
SANDHURST	Sandhurst ...	1,085 17 5	812 17 7	1,354 5 10	544 9 2
	Kilmore ...	84 6 5	...	34 13 0	49 13 5
	Heathcote ...	76 19 10	115 0 0	165 1 1	26 18 9
	Waranga ...	66 0 0	105 0 0	78 5 2	92 14 10
	Raywood* ...	118 19 5	110 0 0	146 1 8	82 17 9
		1,432 3 1	1,142 17 7	1,778 6 9	796 13 11
MARYBOROUGH	Maryborough ...	83 4 9	155 1 4	123 3 7	115 2 6
	Majorca ...	152 2 5	60 0 0	107 19 6	104 2 11
	Talbot ...	211 4 10	225 0 0	310 19 10	125 5 0
	Carisbrook ...	7 15 0	...	...	7 15 0
	Avoca ...	33 8 4	107 10 0	41 2 1	99 16 3
	Dunolly ...	32 5 1	372 18 10	99 15 0	305 8 11
	Tarnagulla ...	69 1 0	180 0 0	105 11 6	143 9 6
	Korong ...	...	...	...	...
	Inglewood* ...	...	140 0 0	39 11 3	100 8 9
	St. Arnaud ...	130 19 9	185 0 0	145 17 8	170 2 1
		720 1 2	1,425 10 2	974 0 5	1,171 10 11
CASTLEMAINE	Castlemaine... ..	...	45 0 0	17 0 0	28 0 0
	Fryer's Town ...	25 2 0	15 0 0	40 2 0	...
	Daylesford ...	34 4 6	15 0 0	13 19 4	35 5 2
	Taradale ...	39 2 6	18 11 11	33 1 0	24 13 5
	Maldon ...	285 16 6	165 0 0	288 15 0	162 1 6
	Anderson's Creek ...	277 18 1	180 0 0	374 3 4	83 14 9
	Gisborne ...	...	30 0 0	13 16 11	16 3 1
	Trentham ...	10 18 6	15 0 0	6 16 0	19 2 6
	Kyneton ...	...	15 0 0	4 14 0	10 6 0
		673 2 1	498 11 11	792 7 7	379 6 5
ARARAT	Ararat* ...	8 0 0	160 0 0	148 0 0	20 0 0
	Beaufort ...	287 11 4½	69 0 0	280 16 1½	75 15 3
	Stawell ...	125 4 2	720 0 9	309 2 6	536 2 5
	Landsborough ...	...	30 0 0	...	30 0 0
		420 15 6½	979 0 9	737 18 7½	661 17 8
GIPPS LAND	Omeo ...	154 19 4	...	106 19 4	48 0 0
	Grant ...	277 6 10	145 16 0	210 5 7	212 17 3
	Bairnsdale ...	18 0 9	35 0 0	47 8 9	5 12 0
	Sale ...	955 6 8	105 0 0	1,025 5 10	35 0 10
	Palmerston ...	...	...	...	...
	Stringer's Creek ...	...	1,198 11 6	287 4 7	911 6 11
		1,405 13 7	1,484 7 6	1,677 4 1	1,212 17 0

* The balances in hand on 31st December, 1866, at the hands of the Wardens' Clerks at Raywood, Ararat, and Inglewood, are correctly stated in the above return. In the published statistics for 1866 it should have been noted at the foot of Statement No. 38 that the returns for Raywood and Ararat only embraced the first eleven months of the year. At Inglewood there was actually no balance on hand on 31st December, 1866, the sum set down as such balance forming a portion of the amount which had been embezzled by W. Hardy, for which offence he was tried and convicted in February, 1867.

No. 41.

RETURN of the QUANTITIES of GUNPOWDER issued, &c., on the several GOLD FIELDS during the Year 1867.

MINING DISTRICTS.	Quantity in Stock at the commencement of the Year.	Quantity Issued during the Year.	Quantity in Stock at the end of the Year.
	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.
Ballarat District ...	12 17 3 20	44 5 3 21	9 19 3 3
Becchworth District ...	0 16 2 0	0 14 0 0	0 6 2 0
Sandhurst District ...	33 17 3 17	89 14 0 22	22 13 1 11
Maryborough District ...	8 10 3 18	15 7 0 19	11 19 2 6
Castlemaine District ...	6 11 1 25	28 0 2 24	5 2 1 23
Ararat District... ..	4 6 0 18	13 16 2 7	6 4 1 9
Gipps Land District ...	4 15 1 7	4 14 1 19	5 9 2 11
Totals ...	71 16 0 21	196 13 0 0	61 15 2 7

NOTE.—The quantity of gunpowder on hand in the Ballarat District at the commencement of the year was as above stated, and not 13 tons 2 cwt. 1 qr. 20 lbs., as shown in the *Mineral Statistics* for 1866. The difference arises from the Keeper of the Magazine at Creswick having included ammunition in his returns of gunpowder received during the year 1866.

No. 42.

SUMMARY.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1867.

MINING DISTRICTS.					Number of Companies.	Number of Shares.	Nominal Capital.	
							£	s. d.
Ballarat District	...	...	...	...	51	124,100	499,800	0 0
Beechworth District	...	...	...	...	26	48,950	182,574	0 0
Sandhurst District	...	...	...	...	5	65,250	41,312	10 0
Castlemaine District	...	...	...	...	21	101,048	172,060	0 0
Maryborough District	...	...	...	...	24	117,760	217,100	0 0
Ararat District	...	...	...	...	25	21,591	93,100	0 0
Gipps Land District	...	...	...	...	8	13,105	28,150	0 0
Totals ...					160	491,804	1,234,096	10 0

NOTE.—It appears from the returns forwarded by the Clerks of the Courts of Mines that twelve companies have been wound up, with 16,680 shares, and a nominal capital of £131,600.

[For information relative to companies registered and companies wound up previous to 1st January, 1867, see Tables No. 40 and No. 41, *Mineral Statistics 1866.*]

No. 43.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1867.

MINING DISTRICTS.					COURTS.		Number of Companies.	Number of Shares.	Nominal Capital.	
									£	s. d.
BALLARAT ...	{	Ballarat	...	...	...	...	30	88,250	388,800	0 0
		Buninyong	...	...	...	...	2	3,500	7,500	0 0
		Smythesdale	...	...	...	...	5	3,030	16,100	0 0
		Creswick	...	...	...	...	6	10,630	37,900	0 0
		Steiglitz	...	...	...	...	7	18,190	43,500	0 0
		Mount Blackwood	...	...	...	...	1	500	6,000	0 0
		Totals	...	...	...	...	51	124,100	499,800	0 0
BEECHWORTH	{	Beechworth	...	...	...	...	5	3,140	15,880	0 0
		Yackandandah	...	...	...	...	...	...	...	...
		Rutherglen	...	...	...	...	1	6,000	6,000	0 0
		Morse's Creek	...	...	...	...	1	1,200	6,000	0 0
		Chiltern	...	...	...	...	...	...	...	...
		Jamieson	...	...	...	...	8	9,936	57,720	0 0
		Wood's Point	...	...	...	...	11	28,674	96,974	0 0
		Totals	...	...	...	...	26	48,950	182,574	0 0
SANDHURST	{	Sandhurst	...	...	...	...	3	35,250	21,312	10 0
		Kilmore	...	...	...	...	...	...	...	...
		Heathcote	...	...	...	...	...	...	...	...
		Rushworth	...	...	...	...	2	30,000	20,000	0 0
		Totals	...	...	...	...	5	65,250	41,312	10 0
CASTLEMAINE	{	Castlemaine	...	...	...	...	1	2,000	10,000	0 0
		Fryer's Town	...	...	...	...	3	7,200	15,200	0 0
		Daylesford	...	...	...	...	4	3,380	11,000	0 0
		Taradale and Malmsbury	...	...	...	...	1	6,000	6,000	0 0
		Maldon	...	...	...	...	9	45,468	55,360	0 0
		St. Andrew's	...	...	...	...	2	22,000	52,000	0 0
		Kyneton	...	...	...	...	1	15,000	22,500	0 0
		Totals	...	...	...	...	21	101,048	172,060	0 0
MARYBOROUGH	{	Maryborough	...	...	...	...	...	...	...	...
		Amherst	...	...	...	...	6	12,640	34,200	0 0
		Avoca	...	...	...	...	2	3,120	10,500	0 0
		Dunolly	...	...	...	...	6	15,700	26,500	0 0
		Inglewood	...	...	...	...	3	44,000	49,750	0 0
		St. Arnaud	...	...	...	...	3	36,000	81,250	0 0
		Tarnagulla	...	...	...	...	4	6,300	14,900	0 0
		Carisbrook	...	...	...	...	...	...	...	...
		Totals	...	...	...	...	24	117,760	217,100	0 0
ARARAT ...	{	Ararat	...	...	...	...	1	600	6,000	0 0
		Pleasant Creek	...	...	...	...	5	2,500	5,400	0 0
		Beaufort	...	...	...	...	19	18,491	81,700	0 0
		Totals	...	...	...	...	25	21,591	93,100	0 0
GIPPS LAND	...	Sale	...	...	...	...	8	13,105	28,150	0 0

No. 44.

STATEMENT of the REVENUE directly derived from the GOLD FIELDS in each Year, from 1851 to 1867 inclusive, compiled from the Treasury Statements of Revenue, &c.

Year.	Gold Licenses (including Store Licenses).	Miners' Rights.	Business Licenses.	Escort Fees.	Treasury and Custody Fees.	Export Duty.	Leases of Gold and Mineral Lands.	Other Leases and Licenses.	Other Gold Revenue.	Totals.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1851	21,776 19 11	...	{ Store Licenses included in Column 1 }	2,626 12 8	...	...	...	...	23 3 8	24,426 16 3
1852	399,138 12 4	...	"	39,706 17 8	...	...	...	...	...	438,845 10 0
1853	660,883 11 5	...	"	52,439 1 0	7,542 6 2	...	...	...	...	720,864 18 7
1854	395,402 19 7	...	"	56,657 12 4	5,306 7 1	...	...	...	101 17 10	457,668 16 10
1855	39,821 1 7	49,507 0 0	19,969 10 0	20,509 12 2	2,136 6 9	231,482 12 11	3,517 15 0	...	...	366,943 18 5
1856	...	54,163 11 0	31,378 4 7	964 12 6	1,278 1 6	376,292 14 2	2,220 8 2	...	...	466,297 11 11
1857	...	54,029 0 0	18,342 10 0	1,058 14 8	...	340,062 16 0	4,279 3 3	...	...	417,772 3 11
1858	...	47,912 0 0	21,039 0 0	473 0 8	...	320,910 18 5	107 5 0	...	...	390,442 4 1
1859	...	47,554 0 0	19,583 0 0	345 0 0	...	286,883 0 7	...	...	...	354,365 0 7
1860	...	43,876 10 0	19,007 10 0	148 10 3	...	268,323 4 8	7,136 17 2	...	...	338,492 12 1
1861	...	36,216 0 0	19,065 0 0	94 0 7	...	245,929 13 10	9,329 5 9	...	...	310,634 0 2
1862	...	34,606 0 0	11,340 0 0	...	...	184,521 6 1	5,240 8 5	...	...	235,707 14 6
1863	...	28,696 0 0	10,020 0 0	...	...	121,508 19 8	6,093 11 11	...	...	166,318 11 7
1864	...	28,117 0 0	10,120 0 0	...	...	115,697 8 6	8,306 7 6	...	...	162,240 16 0
1865	...	25,231 0 0	7,795 0 0	...	...	102,752 7 8	15,218 5 4	...	...	150,996 13 0
1866	...	13,307 15 6	4,142 5 0	...	...	81,912 1 2	13,621 12 2	410 7 5	...	113,394 1 3
1867	...	11,567 18 9	3,554 7 6	...	...	35,843 7 1	12,509 0 3	558 18 0	...	64,033 11 7
	1,517,023 4 10	474,783 15 3	195,356 7 1	175,023 14 6	16,463 1 6	2,712,120 10 9	87,579 19 11	969 5 5	125 1 6	5,179,445 0 9

Note.—The charges for Gold Licenses were as follow:—Up to the 1st September, 1853, 30s. per month; from 1st September to 1st December, 1853, 40s. for 3 months; and from the 1st December, 1853, to the 11th June, 1855, as follows: for 1 month, £1; 3 months, £2; 6 months, £4; and for 12 months, £8.

Miners' Rights were issued from the 12th June, 1855, at £1 per annum; and from the 1st January, 1866, at 5s. per annum.

The charges for Business Licenses were as follow:—From 1st December, 1853, for 3 months, £15; for 6 months, £25; and for 12 months, £50. From the 12th June, 1855, for 3 months, 50s.; for 6 months, £5; and for 12 months, £10. From the 1st January, 1866, for 6 months, £2 10s.; and for 12 months, £5.

The Export Duty on Gold was, from the 1st May, 1855, 2s. 6d. per oz.; from the 1st July, 1862, 2s. per oz.; from the 1st

January, 1863, 1s. 6d. per oz.; from the 12th April, 1866, 1s. per oz.; and from the 1st January to the 31st December, 1867, 8d. per oz., when it ceased to be collected.

The Leasing of Auriferous Lands was first provided for by 18 Vic. No. 37, clause V.; and the Regulations under that Act fixed the rents for alluvial lands at £10 per acre per annum; and for quartz lodes, at £1 per lineal yard of reef. No leases were issued under that Act, but during the years 1855–8 deposits, on account of applications under the Regulations of 12th June, 1855, and 4th October, 1855, were received, to the amounts set down in the table. Under the Act 21 Vic. No. 32 leases were first issued. The rent charged up to 30th September, 1861, was—for alluvial land, £5 per acre per annum; and for lodes, £5 per 100 yards along the line of reef. From the 1st October, 1861, to the end of 1865, 50s. per acre per annum was the rent, whether for alluvial lands or quartz lodes; and from the 1st January, 1866, the rent has been £1 per acre per annum.

No. 45.

TABLE showing the WAGES paid per week for different kinds of LABOR in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT during the Year 1867, from Returns made by the Mining Surveyors and Registrars.

MINING DISTRICT.	MINING SURVEYORS AND REGISTRARS' DIVISIONS AND SUBDIVISIONS.										General Manager.	Legal Manager.	Mining Manager.	Engineer.	Engine-driver.	Pitman.	Blacksmith.	Carpenter.	Foreman of Shift.	Miners.	Surface Men (Laborers).	Boys.	Chinese.					
	£	s.	d.	£	s.	d.	£	s.	d.	£														s.	d.	£	s.	d.
BALLARAT	Central Division...	5	10	0	2	10	0	5	0	0	2	10	0	5	0	0	3	10	0	2	5	0	2	5	0	£	s.	d.
	Southern Division	...	...	...	2	0	0	2	10	0	to	to	to	2	10	0	2	10	0	2	5	0	2	5	0	1	7	6
	Buninyong Division	...	...	...	6	0	0	6	0	0	4	10	0	3	15	0	4	4	0	3	0	0	2	8	0	to	to	to
	Smythesdale Division	...	...	...	4	10	0	...	...	...	3	0	0	3	0	0	3	0	0	2	10	0	2	5	0	1	15	0
	Creswick Division	...	...	...	5	0	0	3	10	0	4	0	0	4	0	0	3	0	0	3	5	0	2	10	0	to	to	to
	Gordon Subdivision	...	...	...	6	0	0	4	10	0	11	10	9	7	13	0	3	6	0	3	18	0*	2	12	0	...	...	...
	Steiglitz Subdivision	...	...	...	2	0	0	...	...	...	3	0	0	4	0	0	2	17	0	2	17	0	2	8	0	0	15	0
	Blackwood Division	...	...	...	2	0	0	to	to	to	2	10	0	3	0	0	2	10	0	2	14	0	2	5	0	...	...	...
	Blue Mountain South Subdivision	...	...	...	0	10	0	5	0	0	2	10	0	3	12	0	3	12	0	3	0	0†	2	10	0	1	5	0
	Beechworth Subdivision	...	...	...	1	0	0	3	0	0	...	...	...	3	0	0	3	0	0	3	0	0	3	0	0	1	0	0
BEECHWORTH	Stanley Subdivision	...	...	...	...	...	5	0	0	...	...	...	3	0	0	...	...	...	3	0	0	3	0	0	to	to	to	to
	Yackandandah Subdivision	...	...	...	6	0	0	...	...	...	5	0	0	3	0	0	3	0	0	3	0	0	2	2	0	...	...	...
	Sandy Creek Subdivision	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Indigo Division	...	...	...	5	0	0	2	0	0	4	10	0	4	0	0	3	10	0	2	15	0	2	5	0	1	0	0
	Buckland Division	...	...	...	5	15	0	1	0	0	3	10	0	4	0	0	3	0	0	2	10	0	2	10	0	2	0	0
	Jamieson North Subdivision	...	...	...	6	0	0	0	10	0	4	10	0	4	10	0	4	0	0	3	10	0	3	0	0	1	10	0
	Gaffney's Creek Subdivision	...	...	...	1	0	0	to	to	to	3	0	0	5	0	0	...	...	...	...	...	...	...	...	...	...	...
	Wood's Point Subdivision	...	...	...	10	0	0	2	0	0	3	10	0	5	0	0	4	0	0	3	0	0	2	10	0	...	...	...
		...	...	...	6	0	0	1	10	0	4	10	0	5	0	0	...	...	...	...	...	...	...	...	...	1	10	0
		...	...	...	7	0	0	4	0	0	5	0	0	6	0	0	4	10	0	4	0	0	3	0	0	2	0	0

* For 10 hours.

† For 12 hours.

No. 46.

THE PRICES OF MINING MATERIALS in the more important Mining centres are as follow :—

BALLARAT.—Castings: Iron puddling machines, 15s. per cwt.; iron harrows, 15s. per cwt.; lift pumps, from 6 in. to 22 in., including workings and connections, £1 2s. per cwt.; winding and pumping gear, £1 10s. per cwt.; water pipe, 14s. per cwt.; stamping batteries, with iron frames and fittings connected with 10 stamps, say 10 tons per head or per stamp or hammer, according to construction or design, £30 to £40. Gas pipe, $\frac{3}{8}$ in. to 2 in., 5d. to 1s. 6d. per ft. Iron rivets, £1 17s. 4d. to £3 0s. 8d. per cwt. Chains, round sizes, $\frac{5}{16}$ to 1 in., £2 2s. to £5 12s. per cwt. Rope: Flat wire, 3 in. x $\frac{5}{16}$ in. to 4 in. x $\frac{5}{16}$ in., £3 5s. to £3 15s. per cwt.; flat hemp, $4\frac{1}{2}$ in. to 6 in., £3 14s. per cwt.; flat English manilla, $4\frac{1}{2}$ in. to 6 in., £4 4s. to £4 10s. per cwt.; round manilla, different sizes, £3 to £3 10s. per cwt. Powder: Glazed blasting, £2 18s. 4d. per 100 lbs.; Kames' blasting, £3 2s. 6d. per cwt.; Hall's blasting, £3 10s. 10d. per cwt. Fuze: Single tape, 9s. per doz. coils; double tape, 12s. to 14s. per doz. coils. Candles, sperm, 11s. 3d. per doz. lbs. Oil: Olive, 7s. to 7s. 6d. per gal.; colza, 6s. 6d. to 7s. 3d. per gal.; castor, 7s. 3d. to 7s. 6d. per gal.; kerosene, 3s. 6d. per gal. Tallow, beef and mutton, £2 to £2 4s. per cwt. Quicksilver, 2s. 4d. to 2s. 6d. per lb. Picks: Single-ended driving, £2 14s. to £3 per doz.; single-ended sinking, £4 10s. per doz.; double-ended, £2 8s. to £3 per doz. Pick hilt, &c.: Hickory, 16s. to 18s. per doz.; colonial lightwood, 8s. to 13s. per doz. Shovels: Long-handled, £3 to £4 4s. per doz.; D-handled, £2 2s. to £4 per doz.; Cornish socket-handle, £3 per doz. Shovel handles: English, £1 per doz.; colonial, 10s. per doz. White yarn: Flax packing, 1s. 4d. to 1s. 6d. per lb.; white yarn, 1s. 6d. to 1s. 10d. Hemp, packing, 10d. to 1s. 1d. per lb. Iron: Common, 14s. per cwt.; best, 15s. to £1 12s. Leather: Colonial, for pumps, 1s. to 2s. per lb.; English, 2s. 3d. to 3s. 6d. per lb.; belt leather, colonial, 1s. 6d. to 2s. 9d. per lb. Gutta percha: sheet, for pump clacks, 3s. 3d. per lb.; sheet, $\frac{1}{4}$ in. to $\frac{3}{8}$ in. thick, 4s. per lb.; tubing, &c., 4s. to 4s. 6d. per lb. Steel: Cast, £3 5s. to £3 14s. 6d. per cwt.; blister, £2 6s. to £3 5s. per cwt.; shear, £3 5s. to £3 14s. 6d. per cwt.; spring, £2 16s. per cwt.

CRESWICK.—Castings: Stamp-heads and beds, 19s. per cwt.; wheels, &c., £1 6s. per cwt. Hemp rope, 3 to 8 in., £3 10s. per cwt. Blasting powder, £4 per 100 lbs. Fuze, 11s. 6d. to 15s. per doz. coils. Candles, 11s. 6d. to 13s. per doz. lbs. Oil: Colza, 7s. to 8s. per gal.; machine, 6s. 6d. per gal. Tallow, £1 16s. 6d. to £2 2s. per cwt. Quicksilver, 2s. 3d. per lb. Picks, £1 4s. to £3 12s. per doz. Pick hilt, &c., 15s. per doz. Shovels, long-handled, £2 4s. to £3 14s. per doz. Leather, English, for pumps, 3s. 3d. per lb. Cotton waste, 7d. per lb. Iron, common, 16s. per cwt. Steel: Cast, £3 5s. per cwt.; blister, £2 14s. per cwt. Sheet indiarubber, $\frac{3}{8}$ in. 4s. per lb., $\frac{1}{2}$ in. 4s. 6d. per lb.

BUCKLAND.—Castings, plain, without extra work after being taken out of the sand, £1 15s. per cwt. Chain, smaller sizes, £2 16s. per cwt. Hemp and wire rope, £4 13s. 4d. per cwt. Powder, coarse, for blasting, £3 15s. per 100 lbs. India-rubber fuze, double, 16s. per doz. coils. Candles, sperm, good brands, 16s. per doz. lbs. Oils: Colza, 8s. per gal.; olive, 9s. per gal.; Chinese, 9s. 6d. per gal.; kerosene, 6s. per gal. Quicksilver, 3s. 3d. per lb. Picks: double-ended, £4 16s. per doz.; single-headed, £4 10s. per doz. Pick hilt, &c., per doz., £1 2s. Shovels, £4 4s. to £4 16s. per doz. Leather: Colonial, 2s. 9d. per lb.; English, 3s. 6d. per lb. Iron: Common, £1 12s. 8d. per cwt.; best, £1 17s. per cwt. Steel: Cast, £5 12s. per cwt.; blister, £4 13s. 4d. per cwt.

WOOD'S POINT.—Castings, stamp-heads and false bottoms (white metal, known to smelters as hematite), £1 12s. per cwt. Rope, manilla, £5 per cwt. Powder, patent glazed and all brands, £4 4s. per 100 lbs. Fuze, best double tape, 12s. per doz. coils. Candles, Nava, 17s. per doz. lbs. Oil, castor and olive, 11s. per gal. Quicksilver, 2s. 9d. per lb. Picks, mining picks, £1 16s. per doz. Pick hilt, &c., 18s. per doz. Shovels: Long-handled, £5 per doz.; short-handled, £3. Leather, belting and grain, 1s. per lb. Vulcanized indiarubber belting, 5 in., four-ply, 4s. per ft. Iron, best, £2 6s. 8d. per cwt. Steel: Cast, £4 4s. per cwt.; blister, £5 5s. per cwt.

SANDHURST.—Castings: Stamp-heads, shoes and bottoms, 18s. per cwt.; general work, £1 2s. per cwt. Chains: Round's patent flat, 4s. 6d. per ft.; ordinary, £1 14s. per cwt. Rope, manilla, 3 in. to 6 in., £3 8s. per cwt. Powder, Hall's, £2 1s. 8d. to £2 10s. per 100 lbs. Fuze, Bickford and Co.'s double tape (by the cask), 11s. 6d. per doz. coils. Candles, sperm, 10s. to 12s. per doz. lbs. Oil: Kerosene, 3s. per gal.; neatsfoot, 7s. 6d. per gal.; other oils (average), 7s. per gal. Tallow, beef and mutton mixed specially for machine purposes, £1 12s. 8d. per cwt. Quicksilver, 2s. 6d. per lb. Picks, hammer-headed, £2 8s. per doz. Pick hilt, &c., box and gum, 10s. per doz. Shovels: American long-handled, Amess' No. 3, £4 4s. per doz.; Carr's, £3 6s. per doz. Leather: Colonial sides (good), 1s. 6d. per lb.; English butts, 3s. per lb. White yarn for lamps, 1s. 6d. per lb. Cotton waste for cleaning, 9 $\frac{1}{2}$ d. per lb. Hemp, flax for packing, £9 16s. per cwt. Iron, best, 17s. per cwt. Steel: Cast, £2 18s. per cwt.; blister, £2 14s. per cwt.

MARYBOROUGH.—Castings, whim and truck wheels, £1 5s. per cwt. Chains, short links, $\frac{5}{8}$ in. to 1 in., £2 per cwt. Rope, manilla, $\frac{1}{2}$ in. to 6 in., £3 10s. per cwt. Powder, blasting, £3 12s. per 100 lbs. Fuze, double tape, 13s. per doz. coils. Candles, sperm, 12s. per doz. lbs. Oil: Colza, 7s. per gal.; castor, 8s. per gal.; olive, 8s. 6d. per gal. Tallow: mutton, £2 2s. per cwt.; beef, £1 16s. per cwt. Quicksilver, 3s. per lb. Picks, driving and sinking, single ends, weight 3 to 6 lbs., £1 10s. to £3 per doz. Pick hilt, &c., colonial principally, 9s. per doz. Shovels, American principally, £2 12s. to £3 12s. per doz. Leather, English hide, 3s. per lb. Iron, best BBH, 18s. 8d. per cwt. Steel: Cast, £3 5s. 4d. per cwt.; blister, £2 16s. per cwt.

CASTLEMAINE.—Castings: for stamping batteries, 18s. per cwt.; wheels, £1 3s. per cwt.; pipes, 14s. to £1 per cwt.; Chilian mills, £1 per cwt. Chains, $\frac{3}{8}$ in. to $\frac{1}{2}$ in., £1 10s. per cwt. Rope, manilla, £3 10s. per cwt. Powder, blasting, £2 18s. 4d. per 100 lbs. Fuze, double tape, 13s. per doz. coils. Candles, sperm, 12s. 6d. per doz. lbs. Oil: Colza, 8s. per gal.; olive, 9s. per gal.; castor, 7s. per gal. Tallow, colonial, £2 16s. per cwt. Quicksilver, 2s. 4d. per lb. Picks, driving, £2 8s. per doz. Pick hilt, &c., hickory, 16s. per doz. Shovels: American, £3 per doz.; Cornish, 1s. per lb. Leather: Colonial, 1s. per lb.; English, 3s. per lb. Cotton waste, 1s. per lb. Hemp, packing, 2s. per lb. Iron, common BBH, 17s. per cwt. Steel: Cast, £3 10s. per cwt.; blister, £2 16s. per cwt.

MALDON.—Castings, stamp-heads, £1 2s. per cwt. Chains, common, $\frac{5}{8}$ in. to $\frac{7}{8}$ in., £2 2s. per cwt. Rope: Manilla, 8 in., £3 3s. per cwt.; flat, 5 in., £4 4s. per cwt. Powder, Hall's, £3 6s. 8d. per 100 lbs. Fuze, Bickford's, 13s. per doz. coils. Candles: Tallow, 7s. per doz. lbs.; sperm, 12s. per doz. lbs. Oil: Colza, 7s. per gal.; castor, 6s. 6d. per gal. Tallow, mutton and beef, £2 6s. 8d. per cwt. Quicksilver, 2s. 6d. per lb. Picks, hammer-headed, £3 per doz. Pick hilt, &c., sheoak, 8s. per doz. Shovels: Long-handled, £3 18s.; short-handled, £3 6s. per doz. Leather, English hide, 2s. 6d. per lb. Cotton waste, 1s. 9d. per lb. Hemp, small yarn for engine packing, £8 8s. per cwt. Iron: Common bar and flat, 18s. per cwt.; best, £1 4s. per cwt. Steel: Small quantities cast, £2 14s. per cwt.; blister, small quantities, £2 16s. per cwt.

ARARAT.—Castings, fire bars, truck wheels, shoes, £1 5s. per cwt. Rope, manilla, 7 in., £3 7s. 6d. per cwt. Powder, Kames' and Hall's blasting, £2 15s. per 100 lbs. Fuze, double tape, 14s. per doz. coils. Candles, stearine, 12s. 6d. per doz. lbs. Oil: Colza, 8s. 6d. per gal.; olive, 9s. per gal.; kerosene, 4s. 6d. per gal. Tallow, beef, £2 6s. 8d. per cwt. Quicksilver, 3s. 6d. per lb. Picks, common driving, £2 17s. 6d. per doz. Pick hilt, &c., oak, 7s. per doz. Shovels, short-handled, £3 per doz. Leather, English butts, £1 16s. per doz. Hemp, £5 12s. per cwt. Iron, best, £1 2s. per cwt. Steel, cast, £4 per cwt.

No. 47.

TABLE showing approximately the QUANTITY and COST of TIMBER consumed annually for Mining purposes in the several Mining Districts, from Returns made by the Mining Surveyors and Registrars.

										£	s.	d.
BALLARAT ...	...	{	Firewood, &c.	...	...	...	435,525 tons	...	}	288,927	5	8
			Props and Cap-pieces	...	...	...	10,239,500 feet	...				
			Laths and Slabs	...	...	...	137,639 pieces	...				
			Sawn Timber	...	...	...	11,451,500 feet	...				
							1,130,650 pieces	...				
							5,716,210 feet	...				
BEECHWORTH	...	{	Firewood, &c.	...	...	...	50,834 tons	...	}	42,208	17	8
			Props and Cap-pieces	...	...	...	23,100 feet	...				
			Laths and Slabs	...	...	...	271,616 pieces	...				
			Sawn Timber	...	...	...	62 tons	...				
							881,309 pieces	...				
							558 tons	...				
							502,100 feet	...				
SANDHURST	...	{	Firewood, &c.	...	...	...	117,160 tons	...	}	74,614	1	0
			Props and Cap-pieces	...	...	...	1,000,000 feet	...				
			Laths and Slabs	...	...	...	32,500 pieces	...				
			Sawn Timber	...	...	...	600 tons	...				
							833,000 pieces	...				
							670,000 feet	...				
MARYBOROUGH	...	{	Firewood, &c.	...	...	...	87,593 tons	...	}	43,940	5	6
			Props and Cap-pieces	...	...	...	1,259,893 feet	...				
			Laths and Slabs	...	...	...	212,580 pieces	...				
			Sawn Timber	...	...	...	203,100 feet	...				
							691,200 pieces	...				
							419,300 feet	...				
CASTLEMAINE	...	{	Firewood, &c.	...	...	...	133,625 tons	...	}	57,508	14	2
			Props and Cap-pieces	...	...	...	1,239,400 feet	...				
			Laths and Slabs	...	...	...	22,000 pieces	...				
			Sawn Timber	...	...	...	4,018 tons	...				
							210,180 feet	...				
							451,350 pieces	...				
							4,736 tons	...				
							676,200 feet	...				
ARARAT	...	{	Firewood, &c.	...	...	...	159,041 tons	...	}	45,537	4	0
			Props and Cap-pieces	...	...	...	277,483 pieces	...				
			Laths and Slabs	...	...	...	203,400 pieces	...				
			Sawn Timber	...	...	...	313,000 feet	...				
GIPPS LAND	...	{	Firewood, &c.	...	...	...	10,558 tons	...	}	8,387	7	0
			Props and Cap-pieces	...	...	...	15,200 feet	...				
			Laths and Slabs	...	...	...	19,000 pieces	...				
			Sawn Timber	...	...	...	400 tons	...				
							20,900 pieces	...				
							85,860 feet	...				
Total Cost										561,123	15	0

No. 48.

The following particulars which have been collected by the Mining Surveyors and Registrars relate to the weight and cost of the Stamp-heads and Shanks or Lifters made use of in some of the principal Gold Mines in the several Mining Districts, and supply additional information connected with the process of crushing quartz.

In the BALLARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. to 8 cwt. 2 qrs., and the cost is from £3 17s. 6d. to £15 10s. The height the stamp-head falls ranges from 7 to 10 inches. The number of strokes made by stamp-heads per minute is from 50 to 85. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 4 tons. The number of holes per square inch in the gratings used is from 40 to 200.—(The latter number is made use of by the Victoria Company at Clunes; the grating is fixed at the back of the stamper-box.) The horse-power required to work each stamper is from 1 to 2. The quantity of water used per stamp-head in crushing varies from 950 gallons to 8,640 gallons per diem of 24 hours. The quantity of mercury used in the ripples per stamper is from 5 to 75 lbs. The quantity of mercury lost per stamp-head per week varies from 1 oz. to 8 ozs.

In the BEECHWORTH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. 1 qr. 17lbs. to 7 cwt. 3 qrs., and the cost from £5 3s. 6d. to £13 per head. The height the stamp-heads fall varies from 5 inches to 14 inches. The number of strokes made by the stamp-heads per minute is from 40 to 90. The quantity crushed per head per diem of 24 hours ranges from 16 cwt. to 4 tons. The number of holes per square inch in the gratings used is from 60 to 140. The horse-power required to work each stamp-head is from 0.75 to 1.50. The quantity of water used per stamp-head in crushing, varies from 720 gallons to 11,520 gallons per diem of 24 hours. The quantity of mercury used in the ripples per stamper is from 5 to 70 lbs. The quantity of mercury lost per stamp-head per week varies from $\frac{1}{2}$ oz. to 8 ozs.

In the SANDHURST MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. to 8 cwt., and the cost from £4 5s. to £8 11s. The height the stamp-heads fall varies from 6 to 18 inches. The number of strokes made by stamp-heads per minute is from 25 to 75. The quantity of quartz crushed per head per diem of 24 hours ranges from 18 cwt. to 3 tons 0 cwt. 3 qrs. The number of holes per square inch in the gratings used is from 64 to 140. The horse power required to work each stamp-head is from 0.66 to 2. The quantity of water used per stamp-head in crushing varies from 4,000 gallons to 8,640 gallons per diem of 24 hours. The quantity of mercury used in the ripples per stamper is from 10 to 40 lbs. The quantity of mercury lost per stamp-head per week varies from $\frac{1}{2}$ oz. to 5 $\frac{1}{2}$ ozs.

In the MARYBOROUGH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. 2 qrs. to 8 cwt., and the cost from £4 18s. 6d. to £8 14s. 6d. The height the stamp-heads fall varies from 6 to 22 inches. The number of strokes made by stamp-heads per minute is from 50 to 75. The quantity of quartz crushed per head per diem of 24 hours ranges from 1 ton to 3 tons. The number of holes per square inch in the gratings used is from 70 to 144. The horse-power required to work each stamp-head is from 0.50 to 2. The quantity of water used per stamp-head in crushing varies from 900 to 8,640 gallons per diem of 24 hours. The quantity of mercury used in the ripples per stamper is from 3 to 30 lbs. The quantity of mercury lost per stamp-head per week varies from 1 $\frac{3}{4}$ ozs. to 8 ozs.

In the CASTLEMAINE MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. 2 qrs. to 8 cwt., and the cost from £4 2s. 6d. to £21 11s. 6d. The height the stamp-heads fall varies from 6 to 15 inches. The number of strokes made by stamp-heads per minute is from 35 to 75. The quantity of quartz crushed per head per diem of 24 hours ranges from 1 ton to 3 tons 5 cwt. The number of holes per square inch in the gratings used is from 40 to 144. The horse-power required to work each stamp-head is from 0.50 to 2. The quantity of water used per stamp-head in crushing varies from 4,800 to 12,960 gallons per diem of 24 hours. The quantity of mercury used in the ripples per stamper is from 6 to 40 lbs. The quantity of mercury lost per stamp-head per week varies from $\frac{1}{4}$ oz. to 24 ozs.

In the ARARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. to 6 cwt. 3 qrs., and the cost from £7 to £8 8s. The height the stamp-heads fall varies from 7 $\frac{1}{2}$ to 10 inches. The number of strokes made by stamp-heads per minute is from 60 to 72. The quantity of quartz crushed per head per diem of 24 hours ranges from 1 ton 5 cwt. to 1 ton 10 cwt. The number of holes per square inch in the gratings used is from 90 to 120. The horse-power required to work each stamp-head is 0.75. The quantity of water used per stamp-head in crushing varies from 4,320 to 12,960 gallons per diem of 24 hours. The quantity of mercury used in the ripples per stamper is from 6 to 47 lbs. The quantity of mercury lost per stamp-head per week varies from $\frac{1}{2}$ oz. to 7 ozs.

In the GIPPS LAND MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. to 7 cwt. 2 qrs., and the cost from £5 5s. to £40. The height the stamp-heads fall varies from 7 to 10 inches. The number of strokes made by stamp-heads per minute is from 60 to 80. The quantity of quartz crushed per head per diem of 24 hours, ranges from 1 ton 10 cwt. to 2 tons 1 cwt. The number of holes per square inch in the gratings used is from 70 to 250. The horse-power required to work each stamp-head is from 0.75 to 1.50. The quantity of water used per stamp-head in crushing varies from 1,600 gallons to 25,000 gallons* per diem of 24 hours. The quantity of mercury used in the ripples per stamper is from 10 to 37 lbs. The quantity of mercury lost per stamp-head per week varies from 1-5th oz. to 32 ozs.

* This is excessive.

No. 49.

NAMES, LOCALITIES, AREAS, STORAGE CAPACITIES, &c., of GOVERNMENT RESERVOIRS on the GOLD FIELDS completed or in progress 31st December, 1867.

Name of Reservoir.	Where situated.	Area.	Storage Capacity	Drainage Area.	Actual or Estimated Cost, exclusive of Inspection, on Completion of Reservoir.	Actual or Estimated Cost of Construction, exclusive of Inspection, per Million Gallons.	Average Cost of Earthwork and Puddle-wall per Cubic Yard.	Maximum Height of Banks.
		A. R. P.	Gallons.	A. R. P.	£ s. d.	£ s. d.	s. d.	Feet.
<i>Reservoirs completed as follows:</i>								
Commissioners' Gully	Chewton ...	3 0 28	7,000,000	573 0 0	1,202 16 3	171 17 0	2 1	19'50
Dunolly ...	Dunolly ...	15 2 12	17,200,000	438 0 0	1,912 5 6	111 3 0	5 0 $\frac{1}{2}$	15'00
Inglewood ...	Old Inglewood ...	3 2 20	5,670,000	80 0 0	1,111 12 6	195 18 0	2 3 $\frac{3}{4}$	19'98
Ditto ...	New Inglewood ...	11 2 28	13,000,000	300 0 0	1,610 0 9	123 17 0	2 2 $\frac{3}{4}$	13'25
Blackwood ...	Ballan ...	20 2 11	64,441,237	11,078 0 0	1,089 16 8	16 18 0	1 9 $\frac{1}{2}$	35'00
Quartz Recfs (1)	Stawell ...	2 2 38	9,725,627	160 0 0	1,080 4 0	111 2 0	1 10 $\frac{1}{2}$	19'69
Pleasant Creek (3)	Ditto ...	11 1 29	7,905,750	2,240 0 0	775 3 9	98 2 0	2 10	9'01
Four Posts (9) ...	Ditto ...	3 0 32	3,100,000	392 0 0	802 0 0	258 14 2	2 7	11'07
Hepburn ...	Hepburn ...	12 3 0	31,284,413	2,067 0 0	2,526 14 4	80 15 0	2 9 $\frac{3}{4}$	43'35
Smythesdale ...	Smythesdale ...	33 0 0	35,937,000	24,320 0 0	892 4 9	24 17 0	2 0 $\frac{3}{4}$	12'30
Maryborough ...	Maryborough ...	4 3 6	8,100,000	463 0 0	1,065 5 0	131 10 0	1 10 $\frac{1}{2}$	14'70
Grassy Flat (1)...	Sandhurst ...	26 3 2	56,860,375	...	4,002 17 2	70 7 0	2 1 $\frac{1}{2}$	28'80
Ditto (2) ...	Ditto ...	20 1 30	26,769,369	1,800 0 0	1,754 16 6	65 9 0	1 8 $\frac{1}{2}$	19'70
Buninyong ...	Buninyong ...	5 0 23	10,462,485	2,080 0 0	1,047 2 6	100 2 0	2 2 $\frac{3}{4}$	18'16
Creswick ...	Creswick ...	13 0 0	35,392,500	600 0 0	1,077 0 0	30 8 0	2 1 $\frac{1}{4}$	24'37
Maldon ...	Maldon ...	2 2 3	8,591,504	148 0 0	1,385 15 0	161 3 0	2 8	21'23
St. Arnaud ...	St. Arnaud ...	21 1 0	40,600,000	2,300 0 0	2,903 0 0	71 0 0	*	18'45
Kilmore ...	Kilmore ...	12 0 0	14,466,000	409 0 0	844 13 4	58 7 9	1 6 $\frac{1}{2}$	25'39
Oliver's Gully ...	Ararat ...	7 0 38	19,615,554	840 0 0	1,730 18 0	88 6 0	2 1	23'74
Amherst ...	Amherst ...	11 1 0	†13,813,284	2,500 0 0	1,193 7 7	86 9 0	2 4 $\frac{1}{2}$	12'00
Wedderburn ...	Wedderburn ...	3 2 0	3,100,000	500 0 0	992 8 1	320 2 7	2 3 $\frac{1}{2}$	12'69
Tarnagulla ...	Tarnagulla ...	4 0 10	5,000,000	81 0 0	1,167 14 2	233 10 10	1 10 $\frac{1}{2}$	15'59
Opposum Gully, No. 3.	Ararat ...	7 3 0	24,621,547	960 0 0	1,831 6 0	74 8 0	2 1	28'59
Campbell's Reef, (6)	Moyston ...	5 0 0	5,400,000	528 0 0	1,054 9 2	195 5 5	2 5	12'03
Beaufort ...	Beaufort ...	38 1 17	85,881,110	1,600 0 0	1,590 14 1	18 10 0	2 5 $\frac{3}{4}$	16'07
Carngham ...	Carngham ...	21 0 0	17,151,750	2,714 0 0	750 0 0	43 17 0	2 4	14'60
Yackandandah (1)	Yackandandah {	4 2 21	14,819,521	...	2,036 13 2	137 11 0	1 11 $\frac{1}{4}$	39'58
Ditto (2) ...	Ditto ...	5 1 5	20,674,450	2,440 0 0	2,394 5 6	115 16 0	1 10	36'47
Lamplough ...	Lamplough ...	6 0 0	9,261,946	379 0 0	1,232 8 3	133 0 0	2 4 $\frac{1}{2}$	14'00
Sandy Creek ...	Ovens ...	29 2 0	70,000,000	16,000 0 0	2,835 4 0	40 10 0 $\frac{1}{2}$	2 0	35'15
Redbank ...	Redbank ...	9 3 30	27,100,000	815 1 37	2,785 8 6	102 15 8	2 0 $\frac{1}{2}$	27'49
Crocodile Gully	Fryer's Town	3 1 0	5,407,462	450 0 0	767 3 0	142 0 0	2 0 $\frac{3}{4}$	21'66
Spring Gully ...	Ditto ...	3 0 16	7,000,000	383 0 0	949 5 6	135 11 0	2 2	22'75
Kincardineshire (3)	Indigo ...	4 2 28	4,278,937	120 0 0	472 3 4	110 5 0	2 1 $\frac{3}{4}$	8'52
Durham (2) ...	Ditto ...	4 2 0	8,712,000	60 0 0	475 2 6	54 12 0	2 1	8'43
Suffolk (1) ...	Ditto ...	6 0 0	1,701,562	250 0 0	436 15 11	257 0 0	2 2 $\frac{1}{2}$	9'50
Pleasant Creek (2)	Stawell ...	14 0 0	17,000,000	4,800 0 0	†	...	...	12'01
Dinah Flat ...	Forest Creek	8 0 0	22,842,200	1,190 0 0	640 12 6	28 0 0	1 10 $\frac{3}{4}$	20'08
<i>Reservoirs in course of construction, viz.:</i>								
Coliban ...	Malmsbury ...	607 0 0	4,500,000,000	64,000 0 0	78,954 12 1	17 10 11	1 9 $\frac{3}{4}$	56'33
Spring Gully ...	Sandhurst ...	44 0 0	250,000,000	460 0 0	11,965 3 0	47 17 2	1 11 $\frac{1}{4}$	51
Expedition Pass	Forest Creek	25 2 0	120,000,000	3,600 0 0	16,712 9 11	139 5 5	2 3 $\frac{3}{4}$	59
Barker's Creek ...	Harcourt ...	127 1 0	500,000,000	3,429 0 0	28,145 3 4	56 5 9	1 9 $\frac{1}{2}$	49
Stony Creek ...	Brisbane Ranges, near Steiglitz	134 1 24	1,000,000,000	3,181 0 0	42,751 18 0	42 15 0	1 8 $\frac{3}{4}$	84
Myers' Creek ...	Myers' Flat, near Sandhurst	13 0 0	13,000,000	6,400 0 0	572 9 0	44 0 8	1 6	16

* No information as to cost of earthwork.

† Capacity increased to 76,000,000 gallons, with an area of 46 a. 3 r.

‡ No information as to cost of works can be obtained.

MINERALS OTHER THAN GOLD.

No. 50.

RETURN of the NUMBER OF LEASES in force on the 31st December, 1867, for the purpose of Mining for METALS AND MINERALS OTHER THAN GOLD.

NAMES OF METALS AND MINERALS.							Number of Leases.	Area.			Total Capital proposed to be Invested.
								a.	r.	p.	£
Antimony	...	...	...	...	...	...	9	52	1	7	7,650
Coal	...	...	...	...	...	...	3	1,598	2	30	32,000
Copper	...	...	...	...	...	...	1	625	0	12	25,000
Copper and Silver	...	...	...	...	...	...	1	38	3	21	30,000
Flagstones	...	...	...	...	...	...	1	50	0	0	2,000
Kaolin and other Clays	...	...	...	...	...	...	1	7	0	18	1,000
Lignite	...	...	...	...	...	...	2	327	3	14	2,000
Silver	...	...	...	...	...	...	8	583	0	1	32,800
Slate	...	...	...	...	...	...	4	231	2	20	14,900
Tin	...	...	...	...	...	...	1	80	0	0	2,000
Totals	...	...	...	...	...	...	31	3,594	2	3	149,350

No. 51.

RETURN showing the NUMBER OF LICENSES to SEARCH FOR METALS OR MINERALS OTHER THAN GOLD issued during the Year 1867.

NAMES OF METALS OR MINERALS.							Nnmber of Licenses.		Extent of Ground held under Licenses.		
									a.	r.	p.
Coal	...	...	...	...	...	...	12		7,060	0	0
Cobalt	...	...	...	...	...	...	2		960	0	0
Copper	...	...	...	...	...	...	3		1,668	3	20
Copper and Mercury	...	...	...	...	...	...	2		1,270	0	0
Copper, and Mercury, and Silver	...	...	...	...	...	...	1		250	0	0
Copper and Cinnabar, &c.	...	...	...	...	...	...	1		610	0	0
Slate	...	...	...	...	...	...	1		292	1	19
Totals	...	...	...	...	...	...	22		12,111	0	39

NOTE.—Fees are charged for Searching Licenses in accordance with the following scale :—

		£		s.	d.
For an area exceeding 320 acres, but not exceeding 640 acres, per annum	..	..	10	0	0
" 160 " " 320 " "	..	..	5	0	0
" 80 " " 160 " "	..	..	2	10	0
" 64 " " 80 " "	..	..	1	5	0
And for any area not exceeding 64 acres	..	..	1	0	0

(Vide Notice published in the Government Gazette of 2nd December, 1864.)

No. 52.

RETURN of the NUMBER OF MINERAL LEASES issued in the Year 1867, together with the EXTENT OF GROUND LEASED, and the PROPOSED CAPITAL to be employed in working the said ground.

NAMES OF METALS AND MINERALS.							Number of Leases.	Area.			Total Capital proposed to be Invested.
								a.	r.	p.	£
Coal	...	...	...	...	...	...	1	640	0	0	4,000
Copper and Silver	...	...	...	...	...	...	1	38	3	21	30,000
Lignite	...	...	...	...	...	...	1	247	3	18	1,000
Silver	...	...	...	...	...	...	1	50	0	0	2,000
Slate	...	...	...	...	...	...	1	49	3	39	500
Tin	...	...	...	...	...	...	1	80	0	0	5,000
Totals	...	...	...	...	...	...	6	1,106	2	38	42,500

METALLIFEROUS MINERALS, COAL, LIGNITE, CLAYS, SLATES, AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

The produce of the silver mines during the past year has been very small.
According to the returns made to the department the following quantities have been raised and smelted :—

				Silver Ores.	Silver.	
				Tons.	Ozs.	dwt.
Previously—up to 31st December, 1866	...	...	...	8,019	12,513	6
From 1st January to 31st December, 1867	...	...	...	178	78	12
Totals	...	...	...	8,197	12,591	18

The following Statement of Exports has been received from the Customs Department :—

Year.							Silver Ores.		Silver.	
							Tons	cwt.	Ozs.	dwt.
1861	...	...	...	...	...	...	10	6	...	...
1864	...	...	...	...	...	...	...	...	4,207	15
1865	...	...	...	...	...	...	...	...	4,954	0
1867	...	...	...	...	...	...	...	...	366	2
Totals	...	...	...	...	...	...	10	6	9,527	17

A quantity of ore, estimated at 500 tons, has been raised from the mines, but it has not yet been smelted.

From the ores set down in the table, 178 tons, there was obtained, in addition to the silver, a quantity of gold equal to 22 ozs. 8 dwts. 14 grs.

From one lease-block held for silver mining the gold got was largely mixed with silver, but the latter was not separated. The mixed metal fetched from £3 to £3 15s. per oz.

From the Freiberg Silver Mining Company the accounts are not cheering. Silver ores occur only in small quantities. At a depth of 200 feet silver is got, but not in such proportion as to prove remunerative.

Up to the 31st December, 1867, forty-five leases of land had been granted, for an aggregate area of 1,995a. 2r. 28p. Of these, twenty-one have been declared void for non-fulfilment of covenants, and sixteen have been surrendered in order to obtain new leases. There were, therefore, only eight leases in force at the end of the year. The area comprised in these was 583a. 1p. In addition to this number there is one lease of 38a. 3r. 21p. for a mine near Mount Buller, Goulburn, described as a copper and silver mine, but operations have not yet been commenced.

The Mining Surveyor at St. Arnaud, having been called upon in the discharge of his duty to estimate the value of some of the ores raised at St. Arnaud, in order that the Royalties payable under the covenants of the lease might be correctly assessed, found some difficulty in arriving at a satisfactory conclusion, and he forwarded, therefore, samples of the ores to Melbourne for assay. These were placed in the hands of the Director of the Geological Survey for analysis, and the following report was made respecting them by the Government Analyst :—

"The samples consisted of some massive quartz and what seemed to be tailings from a crushing machine. They both contain sulphurets of iron, lead, and zinc. The pyrites and other sulphurets were separated from the quartz and assayed. Those from the massive samples gave 93 ozs. 13 dwts. 12 grs. of silver, and 4 ozs. 3 dwts. of gold per ton. Those from the tailings gave 39 ozs. 14 dwts. 10 grs. of silver per ton. The gold was not estimated. On account of the minute subdivision and unequal dissemination of the silver bearing galena through the other sulphides, the whole of the samples were required for assay.

"The results divided by five will give about the amount contained in the whole of the sample assayed.

(Signed) "J. COSMO NEWBERY, B. Sc.,
"Analyst, Geological Survey."

No one doubts that silver is to be found in considerable quantities in the reefs at St. Arnaud; and the reasons for its not having been made remunerative to the several companies who have expended capital in raising the ores and treating them are not at present very clear.

The vein-stuff, containing as it does gold, silver, and copper, in quite large proportions, should surely remunerate the miners, if the operations were conducted with the necessary skill; but as skilful and experienced persons have tried it, and have not met with success, there would appear to be some difficulty (probably in the extraction of the ores as well as in the treatment) which has not yet been made public.

TIN.

The following Statement of Exports has been received from the Customs Department :—

TIN ORE.							Tons	cwt.
Previously—up to 31st December, 1866, black sand and tin ore	...	...	...	...	...	...	2,473	4
From 1st January to 31st December, 1867	...	...	...	...	...	...	177	10
Total	...	...	...	...	...	...	2,650	14
TIN.							lbs.	
Previously—up to 31st December, 1866	...	...	...	...	...	...	8,160	
From 1st January to 31st December, 1867	...	...	...	...	...	...	4,256	
Total	...	...	...	...	...	...	12,416	

Mr. Warden Butler, of Beechworth, reports as follows:—"Tin ore is obtained at Woolshed Creek, including Sebastopol and Eldorado; also Young's Creek, a tributary of the Woolshed. About 250 tons have been raised during the year, and out of this quantity some ten tons have been smelted, returning from 72 to 74 per cent. of tin. The average value per ton of the ore (black sand), when cleaned and ready for shipment to Melbourne, is from £45 to £48. The market value in England was, according to last advices, £56 to £61 10s. per ton."

There was only one lease for tin mining purposes in force on the 31st December, 1867, viz., that of Mrs. Janette Bowman, for 80 acres, at the heads of the Bunyep. No work except of a preparatory kind has been done, but the existence of the metal has been fully proved, and steps are reported as having been taken to work the mine energetically.

Other leases for tin mining purposes, which were in existence on the 1st January, 1867, have been declared void for non-fulfilment of covenants, viz., four leases of an aggregate area of 360a. 0r. 6p. One lease for 80 acres on the Little Yarra, in the St. Andrew's Division, was granted during the year, but the applicants failing to execute it, it has been declared void.

No searching licenses for tin have been issued during the year. There are two applications lodged for leases, one for 80 acres on the Bunyep, and the other for 50 acres on the Lower Woolshed.

COPPER.

Two leases were in force on the 31st December, 1867, one for 625a. 0r. 12p. on the Thomson River, and the other for 38a. 3r. 21p. on the Liok-Ob-Creek, south of Mount Buller. The latter is for the purpose of Copper and Silver mining, and was granted during 1867; but operations had not been commenced up to the end of the year. Three licenses were granted to search for Copper, two for Copper and Mercury, one for Copper, Silver, and Mercury, and one for Copper, Cinnabar, &c., in all seven licenses, comprising an aggregate area of 3,798a. 3r. 20p.

According to the returns received, the following quantities of copper ore have been raised:—

						Tons.
Previously—up to 31st December, 1866	...	...	...	...	...	350
From 1st January to 31st December, 1867	...	...	...	...	...	230
Total	...	...	...	...	...	580

The manager of the Gipps Land Copper Mining Company, Thomson River, reports 274 tons smelted up to 31st December, 1867, producing $41\frac{1}{2}$ tons Regulus, of an average of 50 per cent., 33 tons of which were sold and realized net £932 10s. 2d., and $8\frac{1}{2}$ tons were converted into rough copper of 90 per cent., valued at about £230.

The following Statement of Exports has been received from the Customs Department:—

						Tons	cwt.
Previously—up to 31st December, 1866	...	...	...	...	...	31	4
From 1st January to 31st December, 1867	...	...	...	...	...	0	3
Total	...	...	...	...	...	31	7

BISMUTH.

There were two searching licenses issued, authorizing the holders thereof to search for this metal, prior to the 31st December, 1866. The periods for which these licenses were granted have expired, and they have not been renewed.

No leases or licenses were issued during the years 1866 and 1867. Bismuth is found at Wombat Creek, in the Mining Division of Omeo, and Mr. Warden Howitt reports thus under date 3rd December, 1867:—"Small fragments of ore are continually discovered in working the auriferous claims. As there are now, say 350 miners on the creek, and as the knowledge that Bismuth is of value is common there, it is to be presumed that during the coming summer some more definite discoveries will be made;" and, further, under date January 24th, 1868:—"Small fragments of waterworn ore are found, but no lode has as yet been discovered; and the so-called Bismuth Reef remains untried."

MOLYBDENUM.

Molybdenite—*Sulphuret of Molybdenum* occurs at Yackandandah in considerable quantities, and fine specimens of the ore have been sent to Melbourne. Some of these were exhibited in the Intercolonial Exhibition.

Mr. Warden Butler reports for the year 1867:—"Nothing has transpired during the year relative to the discovery, opening up, or working of Molybdenite within the limits of the Yackandandah Division."

ANTIMONY.

There were fifteen leases in force on the 1st January, 1867, for an aggregate area of 137a. 3r. 28p. During the year six of these leases have been declared void for non-fulfilment of covenants. No new leases have been granted, and there were, therefore, on the 31st December, 1867, nine leases in force for an aggregate area of 52a. 1r. 7p.

Returns have been received from eight of the lessees; and one lessee has failed to give information.

No searching licenses have been issued during the year.

According to the returns received, the following quantities have been raised:—

ANTIMONY ORE.						Tons.	lbs.
Previously—up to 31st December, 1866	...	...	...	...	...	2,549	26
From 1st January to 31st December, 1867	...	...	...	...	...	272	0
Total	...	...	...	...	...	2,821	26

The following Statement of Exports has been received from the Customs Department:—

ANTIMONY ORE.						Tons.	cwt.
Previously—up to 31st December, 1866	...	...	...	...	...	1,482	12
From 1st January to 31st December, 1867	...	...	...	...	...	508	7
Total	...	...	...	...	...	1,990	19

Several of the mines have not been worked during the year, but some of the lessees have reported their intention to go to work energetically within a short time.

The quantity raised during 1867 (excepting two tons) has been obtained from one mine alone.

MERCURY.

Three licenses have been granted during the year to search for Copper and Mercury, and one for Copper Silver and Mercury, over an aggregate area of 2,130 acres, viz., 1,880 acres near Traralgon and Bruthen Creek, and 250 acres between Port Albert and Rosedale, all in Gipps Land.

The licenses have expired and have not been renewed. The results were not reported.

COBALT.

During the year 1867, two licenses were granted to search for Cobalt. One over an area of 640 acres on the western side of Mount Maxwell, Stringer's Creek, and the other over 320 acres on the Doogalook Run, near Yea. The periods for which these licenses were granted have expired, and they have not been renewed.

COAL AND LIGNITE.

COAL.

According to the returns received, the following quantities have been raised :—

Previously—up to 31st December, 1866 ...	...	...	...	...	Tons. 1,933
From 1st January to 31st December, 1867	...	...	...	...	Nil.
Total	...	...	...	...	1,933

On the 31st December, 1867, there were three leases in force, for an aggregate area of 1,598a. 2r. 30p. Returns have been received from two of the lessees.

One lease was granted during the year for 640 acres on the Upper Tyers River, North Gipps Land; but the applicants failing to take up the lease, it was declared void. Twelve leases for 6,700 acres, at or near Corinella, were granted at the end of the year, but they have not yet been issued.

Twelve searching licenses were issued, for an aggregate area of 7,060 acres.

Mr. Thomas Bury, of Cape Patterson, reports :—"I have only raised a few tons of coal (samples of which I brought and delivered to the Government Geological department) for the purpose of inspection by officers of, and persons appointed by, the Government, and others, so that the value and extent of the coal seams should be properly known."

Mr. W. Hickinbotham, of the New Griffiths' Point Coal Company, reports :—"No coal raised. The bore is 857 feet deep, the contractors have the rods broken in the bore, and are now trying to get them up. They have succeeded in getting up nearly 500 feet, and there is nearly 350 feet now in the bore. They inform me that they hope to get them up very soon. Nearly the whole of them went down the bore."

LIGNITE.

According to returns received, it appears that the following quantities have been raised :—

Previously—up to 31st December, 1866 ...	...	...	...	...	Tons. 235
From 1st January to 31st December, 1867	...	...	...	...	Nil.
Total	...	...	...	...	235

On the 1st January, 1867, there were four leases in force, for an aggregate area of 669a. 24p. During the year three of these leases were declared void for non-fulfilment of covenants. One new lease for 247a. 3r. 18p. has been granted. The area comprised under the two leases in force on the 31st December, 1867, was 327a. 3r. 14p., and the blocks are at Lal Lal.

No searching licenses were granted during the year.

CLAYS.

KAOLIN AND OTHER CLAYS.

No work was done during the year.

Of the two leases in force on the 1st January, 1867, one was declared void for non-fulfilment of covenants, and as regards the other, the holders reported on the 6th January, 1868, that they had then commenced work.

No searching licenses were issued during the year.

According to returns the following quantities have been raised :—

Previously—up to 31st December, 1866 ...	...	...	...	...	Tons. 1,757
From 1st January to 31st December, 1867*	...	...	...	...	Nil.
Total	...	...	...	...	1,757

FLAGS AND SLATES.

FLAGS.

According to the returns received, it appears that the following quantities have been raised :—

					Tons.		Square yards.
					cwt.		
Previously—up to 31st December, 1866	...	...	...	...	69	0	34,500
From 1st January to 31st December, 1867	...	...	...	...	431	15½	10,000
Totals	...	...	...	...	500	15½	44,500

The 10,000 square yards raised in 1867, is thus described :—Hearthstones, 1,560 yards; coveing, 2,000 yards; and paving, 6,440 yards.

* According to the Customs returns, 2 cwt. of kaolin were exported, but it is not known where it was procured.

SLATES.

According to the returns received the following quantities have been raised :—

					Slates, 1,000 and 125	Tons, 125 Nil
Previously—Up to 31st December, 1866	...	...	...	...	...	...
From 1st January to 31st December, 1867	...	...	...	...	...	...
Totals	...	...	...	...	1,000 and 125	...

There is no new information available.

There were five leases in force on the 31st December, 1867, of an aggregate area of 281a. 2r. 20p.; and one lease was issued during 1867, for 49a. 3r. 39p., on the Bald Hill range, near Pleasant Creek.

The quantities raised during the year were obtained almost exclusively from the Castlemaine Division.

Messrs. Rowlands and Williams, holding 150 acres, near the River Moorabool, report that the first half of the year 1867 was spent in opening out the quarry without raising anything of marketable value. And further,—“One of the lessees is at present in Wales for the purpose of procuring better machinery than can be procured in the colony, and also skilled labor in slate-quarrying and dressing.”

Messrs. W. Francis and party, holding 50 acres at Pleasant Creek, report :—“30 tons flags raised. Owing to no demand for same we have not been getting them as we otherwise would. We have got no roofing slate as yet.”

Mr. Warden Heron, of Fryer's Town, reports :—“I am informed that flags and slates are to be found, but the inaccessible nature of the country and expense of cartage prevent their being worked.”

Mr. Warden Thomson, of Kyneton, reports :—“I have seen what seemed to be excellent slate for roofing procured in small quantities near Gisborne; and I am informed that, if capital were applied judiciously, sufficient quantities of good slate might be raised so as to yield a good return.”

MISCELLANEOUS MINERALS.

CARBONATE OF MAGNESIA OR MAGNESITE.

There is no new information to record.

Lieutenant-Colonel Bull, the Warden of Castlemaine, reports that the licensees have ceased to raise magnesite in his district.

LIMESTONE.

The holders of the license which was granted in 1866 appear to have abandoned the ground.

There were 659 packages of shell limestone exported during the year. It was obtained, it is supposed, from the tertiary beds near Geelong, which are full of fossil shells.

DIAMONDS.

The number reported to have been discovered is as follows :—

Previously—up to 31st December, 1866	...	...	...	...	...	57
From 1st January to 31st December, 1867	...	...	...	...	...	1
Total	...	...	...	...	...	58

Mr. Butler, the Warden at Beechworth, states that no diamonds have been reported as having been found during the year; but one is mentioned by Dr. Bleasdale as having been got at Beechworth.

SAPPHIRES, &c.

No new discoveries have been reported to the Mining Department.

Full information respecting the precious stones of Victoria is contained in a paper prepared for the Intercolonial Exhibition by the Rev. John J. Bleasdale, D.D., F.G.S. It gives briefly, and with precision and accuracy, an account of the several kinds of gem-stones found in Victoria, and it should be studied by every miner who is desirous of adding to his earnings by collecting precious stones. Dr. Bleasdale has furnished some additional information on this head, which will be found in Appendix No. 3.

Office of Mines,
Melbourne, 20th February, 1868.

R. BROUGH SMYTH,
Secretary for Mines.

APPENDIX No. 1.

METALS (OTHER THAN GOLD) AND MINERALS AND ORES IMPORTED INTO VICTORIA DURING THE
YEAR ENDING 31st DECEMBER, 1867.

Description.	Quantity.	Value.
		£
Tin	11 tons 5 cwt.	1,095
Copper	130 tons 14 cwt.	4,048
Lead	468 tons 6 cwt.	9,680
Lead Ore	2 tons	20
Zinc	262 tons, 14 cwt., and 1 pkg.	8,375
Spelter	1 ton	30
Quicksilver	1,609 bottles	13,621
Metal, Yellow and undescribed	209 tons 1 cwt., and 4 pkgs.	17,738
Iron, Pig	3,842 tons 18 cwt.	17,158
Arsenic	16½ tons and 57 pkgs.	286
Sulphur	137 tons 17 cwt.	1,843
Kerosene Shale	255 tons	1,440
Coal	115,523 tons	145,075
Coke and Fuel	2,330½ tons	20,815
Slates	1,809,219 No.	18,202
Slate Slabs	585 No.	905
	Total	£260,331

METALS (OTHER THAN GOLD) AND MINERALS AND ORES EXPORTED FROM VICTORIA DURING
THE YEAR ENDING 31st DECEMBER, 1867.

Description.	Quantity.	Value.
		£
Silver	366 ozs. 2 dwts.	105
Quartz	1 ton	20
Quicksilver	165 bottles	1,465
Copper	11 tons 15 cwt.	884
Copper Ore	120 tons 1 cwt.	920
Tin	8 tons 10 cwt.	778
Black Sand	177 tons 10 cwt.	8,612
Antimony Ore	508 tons 7 cwt.	4,972
Lead	6 tons 5 cwt.	135
Metal, Yellow	66 tons 10 cwt.	4,478
Iron, Pig	111 tons 18 cwt.	493
Zinc	15 tons 16 cwt.	579
Spelter	210 tons	2,857
Sulphur	3 tons 13 cwt.	115
Kaolin	2 cwt.	2
Coal	119 tons 6 cwt.	171
Coke and Fuel	64 tons 2 cwt.	339
Slates	2,500 No.	32
Slate Slabs	4 No.	15
Shell, Limestone	659 pkgs.	250
	Total	£27,222

NOTE.—The figures in these tables are extracted from the returns just published by the Honorable the Commissioner of Trade and Customs. The statements include only raw materials. Thus pig iron is included, but not bars, rods, plates, or castings; lead and lead ore, but not piping or sheet lead; and so in like manner the others. The returns published by the Customs Department necessarily include all.

The quantities exported include metals, &c., not the produce of Victoria.

APPENDIX No. 2.

RETURN SHOWING THE QUANTITY AND VALUE OF KEROSENE OIL IMPORTED INTO AND EXPORTED FROM THIS COLONY DURING THE YEARS 1861-1867 INCLUSIVE.

Year.	IMPORTS.		EXPORTS.	
	Quantity.	Value.	Quantity.	Value.
		£		£
1861	113,903 galls.	32,960	14,397 galls.	4,824
1862	233,061 „	47,829	61,995 „	12,699
1863	403,161 „	61,851	93,722 „	16,885
1864	377,665 „	88,870	164,255 „	42,827
1865	617,742 „ and 1,600 cases	116,047	196,121 „	38,463
1866	733,076 „	140,383	305,287 „	59,623
1867	89,825 „ and 192,511 cases	199,544	403,252 „	57,217

J. G. FRANCIS,
Commissioner of Trade and Customs.

Department of Trade and Customs,
20th February, 1868.

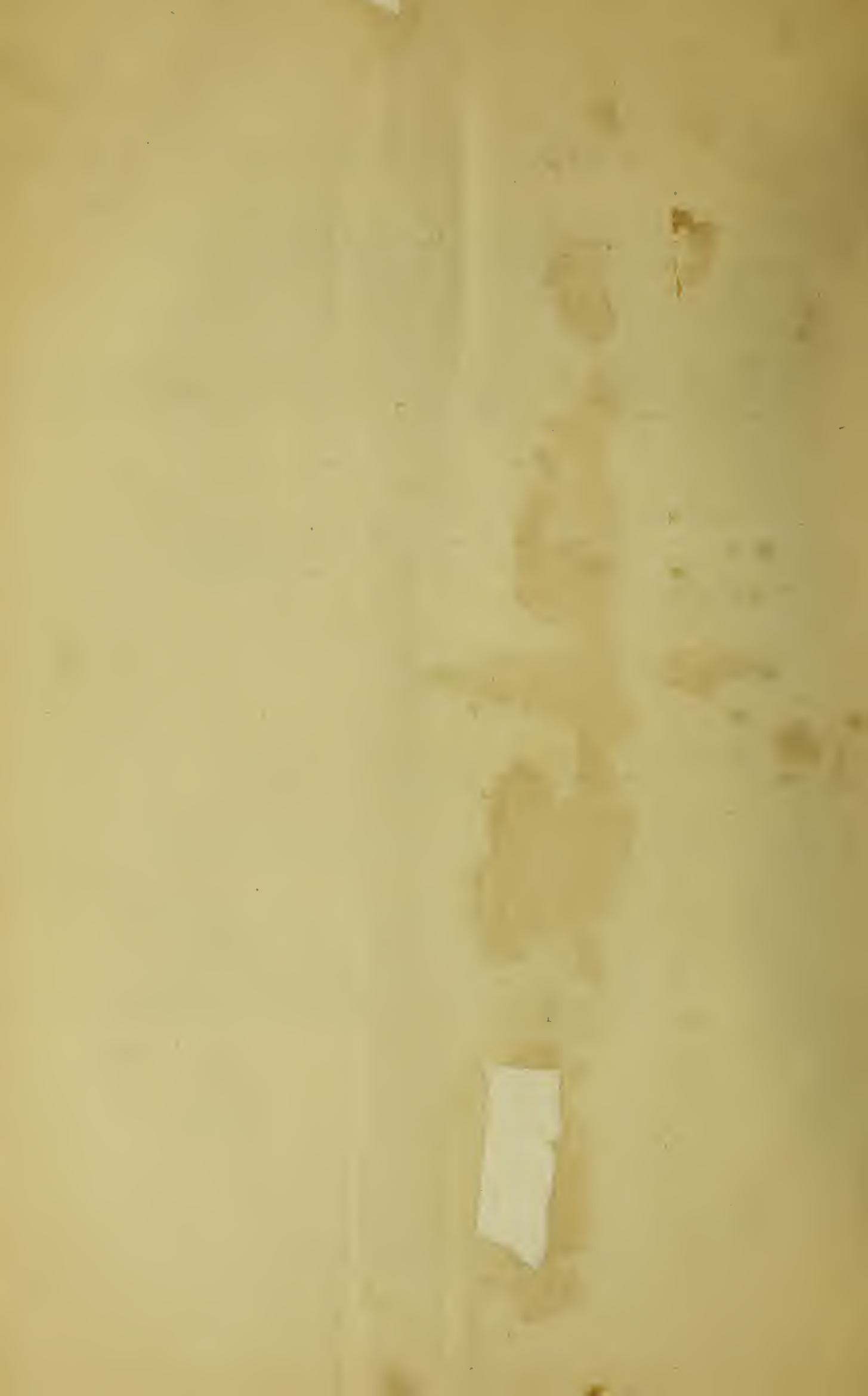
APPENDIX No. 3.

EXTRACT FROM A LETTER ADDRESSED BY THE REV. JOHN J. BLEASDALE, D.D., F.G.S., TO THE SECRETARY FOR MINES.

In reply to your communication of the 18th November ultimo, on the subject of gem-stones found in this colony during the year 1867, I have the honor to state that none of a new or very rare kind have come under my observation, except the specimen Rubellite, upon which I wrote a paper just published in the transactions of the Royal Society. Those specimens were rare and curious, as being imbedded in transparent crystals of quartz; but too small for the jeweller's work. They indicate, however, unmistakably, a locality where, in the drifts and disintegrated quartz, finer and larger crystals might be expected to be found, viz., Broadford Lead, Tarrengower.

From the same locality I was shown, by Mr. Selwyn, perhaps the most perfect crystal, both as to size, crystallographic character, and color, of the blue topaz that I ever saw. It is, however, impossible to give an idea of the value of such a stone.

Mr. Crisp has had cut an exceedingly beautiful diamond from Beechworth, of something less than half a carat—in its cut state, that is—I should think, worth intrinsically £6 or £8; but as a specimen, both of the Victorian diamond, and of a most lively pure-water gem, much more. I have during the year looked through many small parcels of gem-stones, found and collected by diggers, but, with the exception of one star sapphire, discovered nothing of interest among them beyond what I have already published. This small star sapphire is now cut and polished; is leaf shape, about two carats, has a fine clear star in it, and is interesting as being the first I have yet found of the peculiar bluish grey color so universal among the Ceylon star sapphires. I had found them or seen them of every other known color but this, and now I think I have seen specimens of sapphire of every known variety found in Victoria.



1869.
—
VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1868.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND

By Authority:

JOHN FERRES, GOVERNMENT PRINTER, MELBOURNE.

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MEMORANDUM.

THE MINERAL STATISTICS for the Year 1868 have been prepared with great care.

The greater extension of the operations of companies having the command of capital adequate to the thorough exploration of both the deeper alluviums and the quartz veins, is a matter for congratulation. For such enterprises it is absolutely necessary that a secure tenure of the lands be obtained; and as this can be accomplished only under the Leasing Regulations, the Department is able to exercise a salutary control both in the matter of granting lands for mining purposes and in enforcing reasonable covenants in regard to the employment of labor. At the same time it is possible to prevent companies from acquiring large areas which can be profitably wrought by the miner with the usual appliances.

To prevent monopoly; to foster legitimate mining enterprise; to encourage the expenditure of capital, and to preserve the shallower alluviums, both on the new and on the older goldfields, for the exclusive use of the miners who still prefer a tenure under the Bye-laws to that under the Leasing Regulations, is the aim of the Department, and a perusal of the Tables appended to this Report will satisfy the enquirer that by far the greater part of the known auriferous tracts are open to those who work singly or in small companies.

J. F. SULLIVAN,
Minister of Mines.

Office of Mines,
Melbourne, 5th May, 1869.

MINERAL STATISTICS, 1868.

MINE OWNERS, and the officers of the Mining Department, have during the past year, as formerly, freely contributed information respecting the condition and operations of the miners and mining companies throughout the colony ; and the several tables show that the goldfields were never more prosperous than they are at the present time.

GOLD.

The mean number of miners employed in 1867 was 65,857, and in 1868, 63,181, showing a decrease of 2,676 ; but the number employed on the 31st December, 1868, is larger by 1,605 than the number employed on the 31st December, 1867.

The decrease in the number of Chinese miners is only 376. On the 31st December, 1868, there were 15,244 Chinamen employed in alluvial mining, and 56 in quartz mining.

The average earnings per man of the whole of the miners for the year 1868 was £104 18s. 8d., which, compared with the average earnings for 1867, £87 1s. 7d., shows a large increase.

These figures are obtained by dividing the value in pounds sterling of the gross amount of gold got by the mean number of miners employed throughout the year. Necessarily it gives no information as to the profits made by the miners, whether working singly or in companies, but it serves to show, in a rough way, whether the industry is retrograde or progressive.

Table No. 10 shows the number of machines employed in alluvial and quartz mining in the several Mining Districts during the quarter ending 31st December, 1868.

The number of steam-engines and stamp-heads for the years 1867 and 1868 were respectively as follow :—

Year.	ALLUVIAL.		QUARTZ.		
	Number.	Aggregate Horse-power.	Number.	Aggregate Horse-power.	Number of Stamp-heads.
1867 ...	470	9,863	532	9,955	5,529
1868 ...	441	9,844	602	11,045	5,997

The estimated total value of the machinery and mining plant employed on the goldfields on the 31st December, 1868, was £2,150,432, showing an increase of £71,237, as compared with the previous year.

The number of distinct quartz reefs is 2,651, and the extent of auriferous land opened up by the miners is 884 square miles.

The total area of land held as "claims" under the Bye-laws of the Mining Boards on the 31st December, 1868, was 100,941 acres 3 roods and 15 perches, of which 32,641 acres 3 roods and 18 perches were lying idle, being protected by registration or exemption certificates.

The area held under gold mining leases on the same date was 15,337 acres 2 roods and 28 perches, or less than half of the area lying waste under the Mining Board system.

Labor covenants.

As showing the amount of labor expended on leased lands, the following table is instructive :—

Districts.				Number of Leases.	Area.			Number of Men as per Covenant.	Number of Men actually employed, as per Return.
					A.	R.	P.		
Ballarat	...	...	...	33	1,916	1	38	1,187	1,746
Beechworth	...	...	...	118	3,017	0	20	1,402	759
Sandhurst	...	...	...	132	789	2	15	792	666
Maryborough	...	...	...	185	1,455	1	0	1,672	774
Castlemaine	...	...	...	106	1,123	2	12	1,043	837
Ararat	...	...	...	40	485	0	16	415	289
Gippsland	...	...	...	63	847	3	29	575	217
Totals	...	...	...	677	9,635	0	10	7,086	5,288

Revenue derived from the gold-fields.

Table No. 44 shows the revenue derived from the goldfields from 1851 to 1868 inclusive.

As regards leased lands, it is proper to state that the sums paid as rent do not represent the total amount of revenue obtained under the system. Forfeited deposits, fees for consents to assign and transfer, and moneys recovered from defaulters, are not included, and yet in the aggregate they reach a large sum.

Value of claims.

The estimated value of the claims in the several mining districts on the 31st December, 1868, was £8,869,504.

Yield of gold from quartz.

During the past year there were $886,228\frac{1}{2}$ tons of quartz crushed, which yielded an average of 10 dwts. 15·37 grs. of gold per ton.

Since the first publication of the *Mineral Statistics*, information has been obtained concerning $5,811,669\frac{9}{10}$ tons of quartz which have been crushed, and the average yield was 11 dwts. 12·37 grs. of gold per ton.

Prices for crushing, &c.

Tables Nos. 24, 45, 46, 47, and 48 give full information respecting the prices paid for crushing quartz, the weight and cost of stamp-heads, the quantity and cost of timber used, wages for labor, and the prices of materials.

Races and reservoirs.

Water races have been constructed of the total length of 2,434 miles and 20 chains, and they have cost approximately £310,270.

Water-right licenses.

The number of water-right licenses issued in 1868 was 57, for 92 miles and $24\frac{3}{10}$ chains. The quantity of water to be diverted is 77,270,260 gallons per diem, and the estimated capacity of the reservoirs is 9,730,000 gallons.

Companies registered.

There were 329 companies registered in the several courts of mines during the year; the number of shares was 1,227,445, and the nominal capital £3,719,198.

New goldfields.

The Goldfields Reward Board has recommended that rewards be paid for the following discoveries, namely :—

					£
Walter's Rush	...	...	...	...	100
Ghin-Ghin	...	...	...	...	100
U.T. Creek	...	...	...	...	25
Leichardt or Bullock Creek	...	...	...	...	150

The new goldfields discovered during the year are as follow :—

Berlin,	Gympie (near Steiglitz),	Spring Creek (Mormbool),
Fiddler's Creek,	Havelock,	Sydney Flat,
Gibbo River,	Marong,	Whipstick,
Gipsy Diggings,	Murrindindi,	Godfrey's Creek.

Numerous other localities of inferior importance have been opened up during the year.

Mr. J. W. H. Williams, the Secretary of the Board appointed by the Governor in Council to test the qualifications of candidates for the office of Mining Surveyor, reports, for the year 1868, as follows :—"At the first examination eight gentlemen presented themselves, and three passed; at the second, four appeared and one passed; at the third, four, of whom three passed; and at the fourth, six, of whom none passed."

Examination of
Mining Survey-
ors.

The business transacted by the Department of Mines during the year cannot be estimated by any returns relating to the correspondence; but for purposes of comparison the following figures may be useful :—

Business of the
Mining Depart-
ment.

The number of letters received (exclusive of returns) was 13,046; the number despatched, 14,681; the number of accounts passed, 1,310; the number of triplicate schedules dealt with, 410; the returns received, 3,852; the correspondence referred from other departments, 2,726; and the references outwards, 2,771.

The number of applications lodged for gold mining leases was 634; for mineral leases, 2; and for water-right licenses, 33.

Of those granted, refused, or forfeited, the total number dealt with during the year was 768.

Mr. Richard Francis, the Chief Clerk, reports as follows respecting the attendance of officers in Melbourne :—"The periods of absence during the year 1868 (on leave or by reason of sickness) amounted, in the aggregate, to $65\frac{1}{2}$ weeks; and the overtime to $125\frac{2}{9}$ weeks."

Attendance of
officers.

The system of recording every day the arrival and departure of each officer continues to work well.

All the officers throughout the colony have exerted themselves in a manner altogether praiseworthy in securing for the mineral collection all the rarer ores and minerals which are found on the goldfields, and there has been consequently a large increase in the number of specimens during the past year.

Collection of
minerals.

It is proposed to send illustrative specimens of the ores of economic value (with notes as to their modes of occurrence, the quantities obtainable, &c.) to the Honorable Geo. F. Verdon, C.B., the Agent-General in London, and to exhibit the large collection of foreign and colonial minerals in the Intercolonial Exhibition-building in Melbourne. These will be under the care of an attendant, from whom visitors will be able to purchase carefully prepared catalogues, maps, plans, sections, and explanatory pamphlets.

METALS AND MINERALS OTHER THAN GOLD.

Silver.—Only 2,651 tons of ores were raised at St. Arnaud, and $5,761\frac{1}{2}$ ozs. of silver obtained; but a large quantity of the gold got there and at Wood's Point was mixed with silver, and it is not known how much was parted in Victoria. The Customs returns show that 5,604 ozs. 9 dwts. of silver were exported.

Tin.—There were 220 tons 7 cwt. of black sand (mostly oxyd of tin), and 13,216 lbs. of tin exported during the year.

Copper.—About 275 tons of ores have been raised, and 41 tons 18 cwt. of copper and regulus exported.

Antimony.—There were 841 tons 15 cwt. sulphide of antimony raised, and 867 tons 18 cwt. exported.

Coal and Lignites.—Only a few samples were raised.

Flags and Slates.—There were 13,000 square yards and 700 tons of flagging, and 35 tons of slate raised during the year. The quarries containing roofing slates were not worked.

Further information relative to metals and minerals other than gold is given in the Tables.

The following is an estimate of the Metals and Minerals raised in the colony from the first discovery of the Goldfields to the 31st December, 1868 :—

<i>Gold.</i> —Quantity exported from the date of the first discovery to the 31st December, 1868, 36,835,691 $\frac{3}{4}$ ozs.,* at £4 per oz.				£147,342,767
<i>Silver.</i> —Ore raised, 11,348 tons.				
Produce of Silver from ore treated, 18,353 ozs. 8 dwts., at 5s. 6d. per oz.				5,047
<i>Tin.</i> —Ore exported, 2,601 tons 2 cwt.			£192,936	
„ 92 tons 9 cwt., at £70 per ton			6,471	
„ 177 $\frac{1}{2}$ tons, at £52 10s. per ton			9,318	
Tin exported, say 3 tons 12 cwt. 3 qrs. 12 lbs., at £140 per ton			510	
„ 7 tons 16 cwt.			729	
				209,964
<i>Copper.</i> —Ores raised, about 855 tons.				
Smelted, 31 tons 7 cwt., at £112 per ton				£3,511
Regulus, 70 tons 16 cwt.				1,969
Rough Copper, 10 $\frac{1}{2}$ tons				320
				5,800
<i>Antimony.</i> —Ore raised, 2,955 tons 15 cwt. 26 lbs.				£32,102
„ 435 tons, at £6 per ton				2,610
„ 272 tons, at £9 per ton				2,448
				37,160
<i>Coal.</i> —1,933 tons, at £1 10s. per ton				2,899
<i>Lignite.</i> —235 tons, at 17s. 6d. per ton				205
<i>Kaolin.</i> —1,757 tons, at £4 per ton				7,028
<i>Flagging.</i> —57,500 square yards				£19,425
1,200 tons				2,100
				21,525
<i>Slates.</i> —1,000, at £8 per 1,000				£8
160 tons, at £4 per ton				640
				648
<i>Magnesite.</i> —6 $\frac{1}{4}$ tons, at £2 per ton				12
<i>Diamonds.</i> —About 81 carats, at an average of, say £1 per carat				81
<i>Sapphires.</i> —Numbers cannot be estimated—say				150
				£147,633,286

The prices of the several ores, &c., have been obtained from persons best acquainted with the market value of them.

R. BROUGH SMYTH,
Secretary for Mines.

Office of Mines,
Melbourne, 5th May, 1869.

* From returns furnished by the Honorable the Commissioner of Trade and Customs, and inclusive of 1,267,241 ozs., which, according to the Registrar-General's Tables, were produced in Victoria in 1852-5, but passed through the Customs of New South Wales, Tasmania, and South Australia, and not recorded in Victorian Tables. The quantities used and manufactured in the colony cannot be estimated.

TABLES.

No. 1.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1868.

Quarter.	BALLARAT.			BEECHWORTH.			SANDHURST.			MARYBOROUGH.		
	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.
First Quarter, ending March 31st ...	14,373	2,259	16,632	7,686	2,236	9,922	5,965	3,863	9,828	6,792	1,705	8,497
Second Quarter, ending June 30th ...	13,829	2,035	15,864	7,586	2,368	9,954	5,731	4,412	10,143	6,553	1,786	8,339
Third Quarter, ending Sept. 30th ...	13,716	2,346	16,062	7,574	2,293	9,867	6,049	4,175	10,224	7,832	1,972	9,804
Fourth Quarter, ending Dec. 31st ...	13,010	2,712	15,722	7,645	1,898	9,543	9,949	3,597	13,546	7,170	1,893	9,063

Quarter.	CASTLEMAINE.			ARARAT.			GIPPSLAND.			GRAND TOTALS.		
	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.
First Quarter, ending March 31st ...	7,968	1,905	9,873	3,218	993	4,211	2,674	751	3,425	48,676	13,712	62,388
Second Quarter, ending June 30th ...	8,431	1,877	10,318	3,306	989	4,295	2,446	838	3,284	47,882	14,315	62,197
Third Quarter, ending Sept. 30th ...	7,956	2,073	10,029	3,133	1,037	4,170	2,569	757	3,326	48,829	14,653	63,482
Fourth Quarter, ending Dec. 31st ...	7,404	2,054	9,458	2,887	1,238	4,125	2,514	687	3,201	50,579	14,079	64,658

NOTE.—The mean number of Miners employed during the year was 63,181; and the total quantity of Gold exported 1,657,498 ozs., which, at £4 per oz., gives £104 18s. 8·75d. per man per annum. The rate per man per annum for 1867 was £87 1s. 6·91d.; for 1866, £80 8s. 3·87d.; for 1865, £74 4s. 2·09d.; for 1864, £74 1s. 9·29d.; for 1863, £70 9s. 0·42d.; for 1862, £67 14s. 5·11d.; for 1861, £74 15s. 11d.; and for 1860, £79 9s. 3·07d.

No. 2.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS during the Quarter ending 31st December, 1868.

Mining Districts.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District	9,897	3,113	2,701	11	12,598	3,124	15,722
Beechworth District	3,769	3,876	1,879	19	5,648	3,895	9,543
Sandhurst District	9,256	693	3,597	...	12,853	693	13,546
Maryborough District	5,028	2,142	1,885	8	6,913	2,150	9,063
Castlemaine District	4,342	3,062	2,036	18	6,378	3,080	9,458
Ararat District	1,585	1,302	1,238	...	2,823	1,302	4,125
Gippsland District	1,458	1,056	687	...	2,145	1,056	3,201
Totals	35,335	15,244	14,023	56	49,358	15,300	64,658

No. 3.

NUMBER of MINERS employed in the Mining District of BALLARAT during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Central Division	5,600	650	453	...	6,053	650	6,703
Southern Division	1,022	645	150	11	1,172	656	1,828
Buninyong Division	980	250	250	...	1,230	250	1,480
Smythesdale Division	670	550	60	...	730	550	1,280
Creswick Division	850	400	700	...	1,550	400	1,950
Gordon Subdivision	62	18	278	...	340	18	358
Steiglitz Subdivision	250	160	500	...	750	160	910
Blackwood Division	433	430	270	...	703	430	1,133
Blue Mountain South Subdivision	30	10	40	...	70	10	80
Totals	9,897	3,113	2,701	11	12,598	3,124	15,722

No. 4.

NUMBER of MINERS employed in the Mining District of BEECHWORTH during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Subdivision	726	896	153	10	879	906	1,785
Stanley Subdivision	293	156	15	...	308	156	464
Yackandandah Subdivision	700	500	348	...	1,048	500	1,548
Sandy Creek Subdivision	46	198	...	...	46	198	244
Indigo Division	345	210	74	...	419	210	629
Buckland Division	180	1,372	429	5	609	1,377	1,986
Jamieson North Subdivision	545	70	255	...	800	70	870
Gaffney's Creek Subdivision	85	90	175	4	260	94	354
Wood's Point Subdivision	331	4	285	...	616	4	620
Big River Subdivision	130	70	50	...	180	70	250
Mitta-mitta Division	230	240	...	...	230	240	470
Jamieson South Subdivision	158	70	95	...	253	70	323
Totals	3,769	3,876	1,879	19	5,648	3,895	9,543

No. 5.

NUMBER of MINERS employed in the Mining District of SANDHURST during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Sandhurst Division	2,667	565	2,903	...	5,570	565	6,135
Kilmore Division	87	20	140	...	227	20	247
Heathcote Division and Waranga South Subdivision	6,059	97	206	...	6,265	97	6,362
Waranga North Subdivision	43	11	148	...	191	11	202
Raywood Division	400	...	200	...	600	...	600
Totals	9,256	693	3,597	...	12,853	693	13,546

No. 6.

NUMBER of MINERS employed in the Mining District of MARYBOROUGH during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	1,490	400	480	...	1,970	400	2,370
Amherst Division	1,564	540	86	...	1,650	540	2,190
Avoca Subdivision	500	300	60	...	560	300	860
Dunolly and Tarnagulla Divisions	740	680	750	8	1,490	688	2,178
Korong Division	510	150	200	...	710	150	860
Redbank and St. Arnaud South Subdivisions	150	...	100	...	250	...	250
St. Arnaud North Subdivision	74	72	209	...	283	72	355
Totals	5,028	2,142	1,885	8	6,913	2,150	9,063

No. 7.

NUMBER of MINERS employed in the Mining District of CASTLEMAINE during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division...	650	500	580	18	1,230	518	1,748
Fryer's Creek Subdivision ...	1,280	1,000	180	...	1,460	1,000	2,460
Hepburn Division ...	1,182	651	423	...	1,605	651	2,256
Taradale Subdivision...	403	140	16	...	419	140	559
Maldon Division ...	197	371	633	...	830	371	1,201
St. Andrew's Division ...	282	360	149	...	431	360	791
Kyneton Subdivision...	88	30	25	...	113	30	143
Blue Mountain North Subdivision ...	260	10	30	...	290	10	300
Totals ...	4,342	3,062	2,036	18	6,378	3,080	9,458

No. 8.

NUMBER of MINERS employed in the Mining District of ARARAT during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division ...	240	502	148	...	388	502	890
Pleasant Creek Division ...	175	180	1,080	...	1,255	180	1,435
Barkly Division ...	870	120	...	...	870	120	990
Raglan Division ...	300	500	10	...	310	500	810
Totals ...	1,585	1,302	1,238	...	2,823	1,302	4,125

No. 9.

NUMBER of MINERS employed in the Mining District of GIPPSLAND during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Omeo Subdivision * ...	170	210	25	...	195	210	405
Mitchell River Subdivision ...	342	210	...	...	342	210	552
Crooked River Subdivision ...	154	73	259	...	413	73	486
Jericho Subdivision ...	240	48	66	...	306	48	354
Donnelly's Creek Subdivision ...	142	15	42	...	184	15	199
Stringer's Creek Subdivision ...	30	...	230	...	260	...	260
Russell's Creek Subdivision ...	230	...	40	...	270	...	270
South Tarraville Subdivision ...	...	...	...	...	...	...	...
Bendoc Subdivision *...	150	500	25	...	175	500	675
Totals ...	1,458	1,056	687	...	2,145	1,056	3,201

* Bendoc was made a separate Subdivision as per notice in the *Government Gazette* of the 21st July, 1868, page 1322. In the tables of previous years it is included in the returns for Omeo.

SUMMARY.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the several MINING DISTRICTS during the Quarter ending 31st December, 1868.

Mining Districts.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the District.		
	Steam Engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whlms.	Whips or Pulleys.	Sluices, Toms, and Stillee-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing cement).	Boring Machines.	Steam Engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein stuff).	Winding, Washing, Pumping, or other Machines moved by Water-power.		Whlms.	Whips or Pulleys.
	Total Number.	Aggregate Horse-power.											Total Number.	Aggregate Horse-power.						
Ballarat District	286	94	16	2,140	...	43	...	10	49	11	113	2,559	12	1,071	...	35	6	706,393
Beechworth District	71	24	45	13,818	10	160	248	1	...	4	59	802	38	1,006	1	15	11	283,445
Sandhurst District	433	16	124	141	...	...	...	...	298	...	142	2,727	4	1,378	1	184	241	418,738
Maryborough District	496	104	24	184	2	342	2	102	22	...	95	1,670	...	682	...	100	71	227,348
Castlemaine District	521	48	75	637	...	146	14	122	166	1	128	1,982	3	1,050	1	140	97	277,248
Ararat District	75	12	36	182	...	...	...	26	108	2	28	712	...	376	...	37	10	117,451
Gippsland District	5	...	...	2,244	...	181	75	...	...	...	37	593	9	434	1	1	...	119,809
Totals	1,887	298	320	19,346	12	872	339	261	643	18	602	11,045	66	5,997	4	512	436	2,150,432

NOTE.

In the Ballarat District the machinery used in alluvial mining shows a decrease, as compared with the returns for 1867, of 24 steam engines and 118 horse-power, 293 horse-puddling machines, 11 whlms, 622 sluices, toms, and sluice-boxes, and 6 stamp-heads. There is an increase of 2 whips and 11 pumps. In quartz mining machinery there is an increase of 11 steam engines and 152 horse-power, 7 crushing machines driven by other power than steam, and 76 stamp-heads. The value of mining plant shows a decrease of £7,392.

In the Beechworth District the machinery used in alluvial mining shows an increase, as compared with the returns for 1867, of 3 steam engines, 81 horse-power, 2 whips, 184 sluices, toms, and sluice-boxes, 6 hydraulic hoses, 79 water-wheels, and 3 boring machines; but a decrease of 107 in the number of pumps, and 6 horse-puddling machines. In quartz mining machinery there is an increase of 14 steam engines, 199 horse-power, 181 stamp-heads, 8 whlms, and 5 whips. The value of mining plant shows an increase of £36,838.

In the Sandhurst District, of machinery used in alluvial mining, the numbers of steam engines and stamp-heads are the same as in 1867; but there is an increase of 8 horse-power and 52 whips, and a decrease of 56 puddling machines, 4 whlms, and 44 sluices, toms, and sluice-boxes. In quartz mining machinery there is an increase of 5 steam engines, 41 horse-power, 53 stamp-heads, 7 whlms, and 8 whips. The value of all mining plant in the district shows a decrease of £2,412.

In the Maryborough District the machinery used in alluvial mining shows an increase of 6 steam engines, 132 horse-power, 15 whips, 333 pumps, 2 water-wheels, 36 quicksilver and compound cradles, and 4 stamp-heads; but a decrease of 28 puddling machines and 2 boring machines. In quartz mining machinery there is an increase of 13 steam engines, 248 horse-power, 26 stamp-heads, 32 whlms, and 34 whips. The value of mining plant shows an increase of £15,848.

In the Castlemaine District the machinery used in alluvial mining shows a decrease of 10 steam engines, 131 horse-power, 16 whlms, and 22 stamp-heads; but an increase of 2 puddling machines, 32 whips, 140 sluices, toms, and sluice-boxes, 51 pumps, 6 water-wheels, and 15 quicksilver and compound cradles. In quartz mining machinery there is an increase of 21 steam engines, 143 horse-power, and 131 stamp-heads. The increase in the value of mining plant, as compared with last year, is £22,448.

In the Ararat District there is a decrease of 4 in the number of steam engines used in alluvial mining, but an increase of 9 horse-power. There is also an increase of 29 whips and 11 stamp-heads; but a decrease of 5 puddling machines, 2 whlms, 7 sluices, toms, and sluice-boxes, 2 pumps, and 2 quicksilver and compound cradles. In quartz mining machinery the number of steam engines has only increased by 1, but stamp-heads by 70, and the horse-power by 133. There is also an increase of 3 whlms and 7 whips. The value of mining plant shows an increase of £9,893.

In the Gippsland District the machinery used in alluvial mining shows a decrease of 20 puddling machines, 36 pumps, and 2 hydraulic hoses; but an increase of 99 sluices, toms, and sluice-boxes, and 45 water-wheels. In quartz mining machinery there is an increase of 5 steam engines and 174 horse-power; but a decrease of 24 in the number of stamp-heads. The value of mining plant in the district, as compared with last year, shows a decrease of £991.

Comparing the totals of machinery employed on the goldfields in 1868 with the returns for 1867, the machinery used in alluvial mining has decreased by 29 steam engines, 19 horse-power, 406 puddling machines, 34 whlms, 246 sluices, toms, and sluice-boxes, and 16 stamp-heads; but there is an increase of 152 whips, 4 hydraulic hoses, 250 pumps, 132 water-wheels, 47 quicksilver and compound cradles, and one boring machine. In quartz mining machinery there is a general increase, viz., 70 steam engines, 1,090 horse-power, 468 stamp-heads, 49 whlms, and 65 whips, more than last year. There is an increase in the total value of the mining plant on the goldfields, as compared with 1867, of £71,237.

No. 11.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of BALLARAT during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.						Approximate Value of all Mining Plant in the Division or Subdivision.
	Steam Engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam Engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein stuff).	Whims.	Whips or Pulleys.	
	Total Number.	Aggregate Horse-power.									Total Number.	Aggregate Horse-power.					
Central Division ...	127	4,157	40	40	3	90	...	...	...	6	29	658	...	337	10	...	£ 406,175
Southern Division ...	10	202	58	4	11	1	10	...	12	4	9	130	...	62	7	2	20,500
Buninyong Division ...	38	740	18	10	...	17	11	4	...	...	9	200	...	64	...	...	58,000
Smythesdale Division ...	60	1,169	20	26	...	22	3	5	10	...	1	20	...	8	...	...	27,000
Creswick Division ...	18	355	145	13	2	1,200	...	1	12	1	23	702	1	192	3	...	99,500
Gordon Subdivision ...	1	8	5	...	...	...	...	...	...	...	9	239	...	43	5	...	10,018
Steiglitz Subdivision ...	1	10	...	...	...	85	...	...	...	...	21	436	...	152	...	...	50,050
Blackwood Division ...	1	15	...	1	...	725	19	...	15	...	12	174	11	213	10	4	35,000
Blue Mountain South Sub-division ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	150
Totals...	256	6,656	286	94	16	2,140	43	10	49	11	113	2,559	12	1,071	35	6	706,393

No. 12.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of BEECHWORTH during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.								Approximate Value of all Mining Plant in the Division or Subdivision.
	Steam Engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Boring Machines.	Steam Engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein stuff).	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.	
	Total Number.	Aggregate Horse-power.										Total Number.	Aggregate Horse-power.						
Beechworth Subdivision ...	25	266	5	14	5	3,200	...	59	38	...	1	4	57	3	48	...	3	...	£ 47,750
Stanley Subdivision ...	...	...	10	...	...	1,290	3	...	...	...	...	1	18	...	8	...	2	...	4,980
Yackandandah Subdivision	1	4	...	...	...	3,000	...	30	30	...	...	4	55	2	62	...	2	...	12,950
Sandy Creek Subdivision	...	...	...	...	...	...	...	6	6	...	...	...	...	...	...	...	...	...	1,100
Indigo Division ...	13	262	42	10	38	42	...	16	...	...	2	4	50	...	40	...	1	4	29,729
Buckland Division ...	5	68	...	...	...	2,176	4	...	68	...	...	14	192	11	231	...	...	...	36,798
Jamieson North Subdivision ...	...	...	13	...	...	320	...	...	1	...	...	8	104	...	78	...	2	5	16,595
Gaffney's Creek Subdivision ...	...	...	...	...	...	450	...	...	50	...	...	6	58	10	146	1	...	...	30,000
Wood's Point Subdivision	...	...	1	...	2	390	...	30	30	1	1	11	165	9	288	...	5	2	72,320
Big River Subdivision ...	...	...	...	...	...	550	...	...	...	...	...	3	38	2	43	...	...	...	12,000
Mitta-mitta Division ...	...	...	...	...	...	2,000	3	19	18	...	...	...	...	...	...	...	...	...	2,613
Jamieson South Subdivision ...	...	...	...	...	...	400	...	...	7	...	...	4	65	1	62	...	...	...	16,610
Totals...	44	600	71	24	45	13,818	10	160	248	1	4	59	802	38	1,006	1	15	11	283,445

No. 13.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of SANDHURST during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.							QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.
	Steam Engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Stamp-heads (crushing cement).	Steam Engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein stuff).	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.	
	Total Number.	Aggregate Horse-Power.						Total Number.	Aggregate Horse-power.						
Sandhurst Division	32	486	280	16	80	56	298	100	2,050	...	1,012	...	155	203	£ 356,990
Kilmore Division	1	8	5	...	42	7	...	7	87	2	64	...	2	...	5,000
Heathcote Division and Waranga South Subdivision ... ..	...	...	63	...	2	78	...	17	317	2	125	...	14	17	26,048
Waranga North Subdivision ... ..	...	...	55	...	...	...	...	10	163	...	97	...	12	17	16,960
Raywood Division ... ..	...	...	30	...	...	...	...	8	110	...	80	1	1	4	13,740
Totals	33	494	433	16	124	141	298	142	2,727	4	1,378	1	184	241	418,738

No. 14.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of MARYBOROUGH during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.											QUARTZ MINING.					Approximate Value of all Mining Plant in the Division or Subdivision.
	Steam Engines Employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing cement).	Steam Engines employed in Winding, Pumping, Crushing, &c.		Stamp-heads (crushing quartz or other vein stuff).	Whims.	Whips or Pulleys.	
	Total Number.	Aggregate Horse-Power.										Total Number.	Aggregate Horse-Power.				
Maryborough Division ...	21	414	128	17	6	...	...	...	...	35	16	17	392	138	15	11	£ 74,600
Amherst Division ...	10	188	174	56	10	180	2	230	2	36	...	6	84	46	10	7	34,426
Avoca Subdivision ...	7	172	30	3	1	...	...	...	...	3	...	2	24	20	2	...	12,000
Dunolly and Tarnagulla Divisions ...	5	54	81	19	7	...	...	93	...	14	...	36	548	209	31	8	53,900
Korong Division ...	...	...	50	...	...	...	...	...	...	...	...	20	375	159	22	26	28,000
Redbank and St. Arnaud South Subdivisions ...	...	...	16	9	...	...	...	...	...	...	...	2	24	8	3	...	1,220
St. Arnaud North Subdivision ...	1	7	17	...	...	4	...	19	...	14	6	12	223	102	17	19	23,202
Totals ...	44	835	496	104	24	184	2	342	2	102	22	95	1,670	682	100	71	227,348

No. 15.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of CASTLEMAINE during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.	
	Steam Engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing cement).	Boring Machines.	Steam Engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein stuff).	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.		Whips or Pulleys.
	Total Number.	Aggregate Horse-power.										Total Number.	Aggregate Horse-power.						
Castlemaine Division ...	7	151	180	8	...	130	26	...	100	24	...	26	421	...	252	...	26	40	£ 57,160
Fryer's Creek Subdivision	10	183	160	6	14	270	75	2	3	78	...	10	116	...	72	...	6	9	47,197
Hepburn Division ...	16	303	81	12	56	155	44	4	2	36	1	33	498	3	251	1	38	36	39,521
Taradale Subdivision ...	7	181	20	16	...	16	1	1	...	12	...	4	40	...	30	...	...	...	13,307
Maldon Division ...	2	20	73	...	5	15	...	5	17	16	...	39	720	...	297	...	70	12	96,413
St. Andrew's Division ...	...	...	...	...	40	...	2	...	...	...	...	8	77	...	47	...	...	...	6,160
Kyneton Subdivision ...	...	...	7	4	...	4	...	...	...	...	...	4	62	...	85	...	...	...	12,490
Blue Mountain North Subdivision ...	1	8	...	2	...	7	...	...	...	...	...	4	48	...	16	...	...	...	5,000
Totals ...	43	846	521	48	75	637	146	14	122	166	1	128	1,982	3	1,050	1	140	97	277,248

No. 16.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of ARARAT during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions.	ALLUVIAL MINING.									QUARTZ MINING.					Approximate Value of all Mining Plant in the Division.
	Steam Engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Quicksilver and Compound Cradles.	Stamp-heads (crushing cement).	Boring Machines.	Steam Engines employed in Winding, Pumping, Crushing, &c.		Stamp-heads (crushing quartz or other vein stuff).	Whims.	Whips or Pulleys.	
	Total Number.	Aggregate Horse-power.								Total Number.	Aggregate Horse-power.				
Ararat Division ...	3	140	8	1	16	42	6	2	2	10	171	80	2	6	£ 31,011
Pleasant Creek Division ...	6	88	2	2	20	50	15	74	...	17	523	284	35	4	74,000
Barkly Division ...	3	38	28	1	...	90	5	24	...	...	...	...	...	...	3,500
Raglan Division ...	9	147	37	8	...	...	...	8	...	1	18	12	...	...	8,940
Totals ...	21	413	75	12	36	182	26	108	2	28	712	376	37	10	117,451

No. 17.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of GIPPSLAND during the Quarter ending 31st December, 1868.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.				QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.
	Horse Puddling Machines.	Sluices, Toms, and Sluice-boxes.	Pumps.	Water-wheels.	Steam Engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein stuff).	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.		
					Total Number.	Aggregate Horse-power.						
Omeo Subdivision* ...	...	600	40	...	1	17	...	15	...	...	£ 5,200
Mitchell River Subdivision ...	3	100	30	...	2	27	...	21	...	1	4,995	
Crooked River Subdivision ...	...	550	35	42	11	149	4	122	...	...	30,985
Jericho Subdivision ...	...	274	20	20	5	65	3	75	...	...	17,847
Donnelly's Creek Subdivision ...	...	...	...	...	5	76	...	61	...	...	19,550
Stringer's Creek Subdivision ...	...	...	...	...	11	236	1	117	1	...	34,832
Russell's Creek Subdivision...	2	220	36	13	1	8	1	8	...	...	3,900
South Tarraville Subdivision ...	...	...	...	...	...	...	...	...	...	...	...
Bendoc Subdivision *	...	500	20	...	1	15	...	15	...	...	2,500
Totals ...	5	2,244	181	75	37	593	9	434	1	1	119,809	

* Bendoc was made a separate Subdivision as per notice in the *Government Gazette* of the 21st July, 1868, page 1322. In the tables of previous years it is included in the returns for Omeo.

No. 18.

SUMMARY.

NUMBER of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon in the several Mining Districts.

Mining Districts.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District ...	175	76½
Beechworth District ...	561	166
Sandhurst District ...	575	189¾
Maryborough District ...	475	63½
Castlemaine District ...	378	172¾
Ararat District ...	62	65
Gippsland District ...	425	150½
Totals ...	2,651	884

NOTE.—The number of "distinct" quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored, it is found, too, that what were supposed to be separate reefs are not really distinct. The extent of auriferous ground is here put down from estimates made by the Mining Surveyors and Registrars, not from actual surveys; and in a few instances the estimates of the present Surveyors and Registrars differ from those made by their predecessors. The figures vary from year to year; as the shallow alluviums of the older goldfields are abandoned by the miners, they are taken up and occupied, under the provisions of the *Amending Land Act*, by agriculturists and gardeners, and ground which one year was included in the estimated area of gold-workings is excluded in another.

No. 19.

TABLE showing the Number of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon, in the several DIVISIONS and SUBDIVISIONS of each Mining District.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT ...	Central Division	24	7	
	Southern Division	14	6	
	Buninyong Division	13	14	
	Smythesdale Division	12	11	
	Creswick Division	15	8½	
	Gordon Subdivision	17	3½	
	Steiglitz Subdivision	60	20	
	Blackwood Division	16	2½	
	Blue Mountain South Subdivision	4	4	
	Totals	175	76½	
BEECHWORTH ...	Beechworth Subdivision	60	35	
	Stanley Subdivision	25	12¼	
	Yackandandah Subdivision	63	9	
	Sandy Creek Subdivision ... ..	...	2
	Indigo Division	22	2½	
	Buckland Division	232	60	
	Jamieson North Subdivision	28	13	
	Gaffney's Creek Subdivision	13	3	
	Wood's Point Subdivision	92	18	
	Big River Subdivision	8	2½	
	Mitta-mitta Division	3	2¾	
	Jamieson South Subdivision	15	6	
	Totals	561	166	
SANDHURST ...	Sandhurst Division	225	15½	* The extent of auriferous ground worked upon in the Kilmore Division was estimated by Mr. Meagher, the former Mining Registrar, at sixty square miles.
	Kilmore Division	91	26¾ *	
	Heathcote Division and Waranga South Subdivision	135	81½	
	Waranga North Subdivision	89	10	
	Raywood Division	35	56	
	Totals	575	189¾	
MARYBOROUGH ...	Maryborough Division	105	5	† The extent of auriferous ground worked upon in the Korong Division was estimated by Mr. Couchman, formerly Mining Registrar and Surveyor for that division, at sixteen square miles.
	Amherst Division	45	5½	
	Avoca Subdivision	8	10	
	Dunolly and Tarnagulla Divisions	172	16	
	Korong Division	63	11 †	
	Redbank and St. Arnaud South Subdivisions	30	9½	
	St. Arnaud North Subdivision	52	6½	
	Totals	475	63½	
CASTLEMAINE ...	Castlemaine Division	93	9	
	Fryer's Creek Subdivision	30	28¾	
	Hepburn Division	85	82	
	Taradale Subdivision	19	15	
	Maldon Division	74	9½	
	St. Andrew's Division	60	13½	
	Kyneton Subdivision	12	7	
	Blue Mountain North Subdivision	5	8	
	Totals	378	172¾	
ARARAT ...	Ararat Division	18	33½	
	Pleasant Creek Division	33	12	
	Barkly Division	7	14	
	Raglan Division	4	5½	
	Totals	62	65	
GIPPSLAND ...	Omeo Subdivision	18	8	
	Mitchell River Subdivision	9	3½	
	Crooked River Subdivision	334	49½	
	Jericho Subdivision	26	25	
	Donnelly's Creek Subdivision	13	22½	
	Stringer's Creek Subdivision	9	7	
	Russell's Creek Subdivision	6	20	
	South Tarraville Subdivision ... ..	...	...
	Bendoc Subdivision	10	15	
	Totals	425	150½	

No. 20.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1868 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.					Tons Crushed.	Total Produce.		Average Yield per Ton.		
						ozs.	dwt.	ozs.	dwt.	grs.
Ballarat District	...	...	...	...	223,312	87,555	6	0	7	20·19
Beechworth District	...	...	...	...	113,557 $\frac{3}{4}$	78,845	19	0	13	21·27
Sandhurst District	...	...	...	...	237,433	108,075	9	0	9	2·48
Maryborough District	...	...	...	...	83,116 $\frac{3}{4}$	44,512	14	0	9	23·75
Castlemaine District	...	...	...	...	121,590	54,490	14	0	8	23·11
Ararat District	...	...	...	...	78,147 $\frac{18}{20}$	63,252	8	0	16	4·50
Gippsland District	...	...	...	...	23,071 $\frac{1}{2}$	34,760	13	1	10	3·19
Totals	...	...	...	...	886,228 $\frac{18}{20}$	471,493	3	0	10	15·37

NOTE.—The above table does not show the total quantity of quartz crushed in the several localities, but only the yield of certain "crushings," respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving information, it is impossible to get complete returns from every district, and in considering the relative importance of each district, as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the Statistics, information has been obtained concerning 5,811,669 $\frac{9}{20}$ tons which have been crushed, which yielded an average of 11 dwts. 12·37 grs. per ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1868 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and subdivisions.				Tons Crushed.	Total Produce.		Average Yield per Ton.			Remarks.
						ozs.	dwt.	ozs.	dwt.	grs.	
BALLARAT	{	Central Division	...	55,387	12,202	17	0	4	9·75	None reported.
			Southern Division	...	3,585	786	5	0	4	9·27	
			Buninyong Division	...	15,735	3,059	18	0	3	21·34	
			Smythesdale Division	...	5	2	3	0	8	14·4	
			Creswick Division	...	111,733	51,481	15	0	9	5·16	
			Gordon Subdivision	...	11,559	6,757	7	0	11	16·60	
			Steiglitz Subdivision	...	8,018	8,527	16	1	1	6·51	
			Blackwood Division	...	17,290	4,737	5	0	5	11·51	
			Blue Mountain South Subdivision	...	...	...	...	...	...	...
			Totals	...	223,312	87,555	6	0	7	20·19	
BEECHWORTH	...	{	Beechworth Subdivision	...	2,178 $\frac{1}{2}$	2,674	18	1	4	13·37	None reported.
			Stanley Subdivision	...	1,003	885	2	0	17	15·57	
			Yaekandandah Subdivision	...	13,675	10,994	16	0	16	1·92	
			Sandy Creek Subdivision	...	...	...	...	...	...	...
			Indigo Division	...	8,377 $\frac{1}{10}$	3,453	9	0	8	5·87	
			Buekland Division	...	40,114 $\frac{3}{20}$	22,488	15	0	11	5·09	None reported.
			Jamieson North Subdivision	...	7,089 $\frac{1}{2}$	12,707	16	1	15	20·39	
			Gaffney's Creek Subdivision	...	18,677	9,549	4	0	10	5·41	
			Wood's Point Subdivision	...	20,384 $\frac{1}{2}$	14,548	15	0	14	6·58	
			Big River Subdivision	...	1,719	921	15	0	10	17·38	
			Mitta-mitta Division	...	...	...	...	...	...	...
			Jamieson South Subdivision	...	340	621	9	1	16	13·34	
			Totals	...	113,557 $\frac{3}{4}$	78,845	19	0	13	21·27	
SANDHURST	...	{	Sandhurst Division	...	194,200	88,110	3	0	9	1·77	
			Kilmore Division	...	1,551	1,233	19	0	15	21·88	
			Heathcote Division and Waranga South Subdivision	...	5,768	3,007	7	0	10	10·26	
			Waranga North Subdivision	...	14,854	6,434	16	0	8	15·93	
			Raywood Division	...	21,060	9,289	4	0	8	19·71	
			Totals	...	237,433	108,075	9	0	9	2·48	

No. 21.—TABLE showing the Average Yield of Gold in the several Divisions, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
MARYBOROUGH	Maryborough Division ...	32,702	13,677 16	0 8 8·76	
	Amherst Division ...	5,716	1,894 9	0 6 15·08	
	Avoca Subdivision ...	1,357½	1,008 13	0 14 20·64	
	Dunolly and Tarnagulla Divisions ...	26,106	14,321 19	0 10 23·33	
	Korong Division ...	13,131	6,690 12	0 10 4·57	
	Redbank and St. Arnaud South Subdivisions ...	214	138 0	0 12 21·53	
	St. Arnaud North Subdivision ...	9,890¼	6,781 5	0 13 17·11	
	Totals ...	89,116¾	44,512 14	0 9 23·75	
CASTLEMAINE	Castlemaine Division ...	27,231	11,273 15	0 8 6·72	
	Fryer's Creek Subdivision ...	18,136½	3,212 3	0 3 13·01	
	Hepburn Division ...	32,422½	10,119 16	0 6 5·81	
	Taradale Subdivision ...	858	308 13	0 7 4·67	
	Maldon Division ...	32,897	24,002 3	0 14 14·21	
	St. Andrew's Division ...	2,219	3,418 17	1 10 19·54	
	Kyneton Subdivision ...	5,680	1,332 6	0 4 16·58	
	Blue Mountain North Subdivision ...	2,146	823 1	0 7 16·09	
	Totals ...	121,590	54,490 14	0 8 23·11	
ARARAT	Ararat Division ...	16,380½	7,367 19	0 8 23·89	None reported.
	Pleasant Creek Division ...	61,732	55,868 4	0 18 2·40	
	Barkly Division ...	...	...	...
	Raglan Division ...	35	16 5	0 9 6·85	
	Totals ...	78,147½	63,252 8	0 16 4·50	
GIPPSLAND	Omeo Subdivision ...	486½	540 1	1 2 4·83	None reported.
	Mitchell River Subdivision ...	...	...	...
	Crooked River Subdivision ...	5,159	9,793 8	1 17 23·19	
	Jericho Subdivision ...	2,951½	2,204 15	0 14 22·55	
	Donnelly's Creek Subdivision ...	1,684½	760 13	0 9 0·74	None reported. None reported.
	Stringer's Creek Subdivision ...	12,741	21,065 16	1 13 1·62	
	Russell's Creek Subdivision ...	49	396 0	8 1 15·18	
	South Tarraville Subdivision ...	...	...	...
	Bendoc Subdivision ...	...	...	...
	Totals ...	23,071½	34,760 13	1 10 3·19	

No. 22.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1868 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		ozs. dwts.	ozs. dwts. grs.	
Ballarat District...	7,004	1,027 3	0 2 22·39	None reported.
Beechworth District	2,788½	443 15	0 3 4·38	
Sandhurst District	98,653	15,919 13	0 3 5·45	
Maryborough District	11,407	2,322 9	0 4 1·72	
Castlemaine District	57,531	7,948 13	0 2 18·31	
Ararat District ...	18,104	4,226 12	0 4 16·06	
Gippsland District	...	...	...
Totals ...	195,487½	31,888 5	0 3 6·29	

NOTE.—From 1864 to 1863 inclusive, 993,513 tons and 12 cwt. of quartz tailings, &c., were crushed, and yielded 204,141 ozs. 1 dwt. of gold, being an average of 4 dwts. 2·62 grs. per ton.

No. 23.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1868 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
BALLARAT ...	Central Division ...	4,152	ozs. dwts. 405 0	ozs. dwts. grs. 0 1 22·82	None reported.
	Southern Division ...	1,200	180 0	0 3 0	
	Buninyong Division ...	...	...	...
	Smythesdale Division ...	216	24 5	0 2 5·88	None reported.
	Creswick Division ...	1,160	401 1	0 6 21·95	
	Gordon Subdivision	None reported.
	Steiglitz Subdivision ...	276	16 17	0 1 5·30	
	Blackwood Division	None reported.
	Blue Mountain South Subdivision	None reported.
	Totals ...	7,004	1,027 3	0 2 22·39	
BEECHWORTH ...	Beechworth Subdivision	None reported.
	Stanley Subdivision	None reported.
	Yackandandah Subdivision	None reported.
	Sandy Creek Subdivision	None reported.
	Indigo Division ...	1,667	153 18	0 1 20·31	None reported.
	Buckland Division ...	373	71 14	0 3 20·26	
	Jamieson North Subdivision ...	318½	176 14	0 11 2·29	
	Gaffney's Creek Subdivision ...	...	...	...
	Wood's Point Subdivision ...	430	41 9	0 1 22·26	
	Big River Subdivision	None reported.
	Mitta-mitta Division	None reported.
	Jamieson South Subdivision	None reported.
	Totals ...	2,788½	443 15	0 3 4·38	
SANDHURST ...	Sandhurst Division ...	90,906	14,242 10	0 3 3·20	
	Kilmore Division ...	1,011	121 0	0 2 9·44	
	Heathcote Division and Waranga South Subdivision ...	4,783	939 4	0 3 22·25	
	Waranga North Subdivision ...	1,713	586 19	0 6 20·46	
	Raywood Division ...	240	30 0	0 2 12	
	Totals ...	98,653	15,919 13	0 3 5·45	
MARYBOROUGH ...	Maryborough Division ...	1,040	255 2	0 4 21·73	
	Amherst Division ...	669	275 3	0 8 5·41	
	Avoca Subdivision ...	3,120	450 0	0 2 21·23	
	Dunolly and Tarnagulla Divisions ...	1,964	429 16	0 4 9·04	
	Korong Division ...	2,449	619 0	0 5 1·32	
	Redbank and St. Arnaud South Subdivisions ...	1,290	144 0	0 2 5·58	
	St. Arnaud North Subdivision ...	875	149 8	0 3 9·95	
	Totals ...	11,407	2,322 9	0 4 1·72	
CASTLEMAINE ...	Castlemaine Division ...	663	67 18	0 2 1·15	None reported.
	Fryer's Creek Subdivision ...	17,605	4,330 7	0 4 22·06	
	Hepburn Division ...	16,878	1,763 18	0 2 2·16	
	Taradale Subdivision ...	10,500	924 14	0 1 18·27	
	Maldon Division ...	11,885	861 16	0 1 10·80	
	St. Andrew's Division ...	...	...	...
	Kyneton Subdivision ...	...	...	...
	Blue Mountain North Subdivision ...	...	...	...
	Totals ...	57,531	7,948 13	0 2 18·31	
ARARAT ...	Ararat Division	None reported.
	Pleasant Creek Division ...	14,804	2,766 12	0 3 17·70	None reported.
	Barkly Division ...	3,300	1,460 0	0 8 20·36	
	Raglan Division ...	...	...	...
	Totals ...	18,104	4,226 12	0 4 16·06	
GIPPSLAND ...	Omeo Subdivision	None reported.
	Mitchell River Subdivision ...	...	...	...
	Crooked River Subdivision ...	...	...	...
	Jericho Subdivision ...	...	...	...
	Donnelly's Creek Subdivision ...	...	...	...
	Stringer's Creek Subdivision ...	...	...	...
	Russell's Creek Subdivision ...	...	...	...
	South Tarraville Subdivision ...	...	...	...
	Bendoc Subdivision ...	...	...	...
	Totals	

No. 24.

SUMMARY.

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ending 31st December, 1868.

Mining Districts.						From			To		
						£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	...	0	4	0	0	15	0
Beechworth District	...	...	...	...	...	0	7	6	1	5	0
Sandhurst District	...	...	...	...	...	0	5	6	1	0	0
Maryborough District	...	...	...	...	...	0	5	0	0	10	0
Castlemaine District	...	...	...	...	...	0	2	6	1	0	0
Ararat District	...	...	...	...	...	0	8	0	0	10	0
Gippsland District	...	...	...	...	...	0	10	0	1	10	0
Lowest and Highest Prices						0	2	6	1	10	0

No. 25.

SUMMARY.

PRICE of GOLD per Ounce in the several MINING DISTRICTS during the Quarter ending 31st December, 1868.

Mining Districts.						From			To		
						£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	...	3	14	6	4	1	9
Beechworth District	...	...	...	...	...	2	10	0	4	0	9
Sandhurst District	...	...	...	...	...	3	15	3	4	0	0
Maryborough District	...	...	...	...	...	3	10	0	4	1	9
Castlemaine District	...	...	...	...	...	3	14	0	4	0	6
Ararat District	...	...	...	...	...	3	16	0	3	19	6
Gippsland District	...	...	...	...	...	3	0	0	4	1	0
Lowest and Highest Prices						2	10	0	4	1	9

No. 26.

QUANTITY of GOLD EXPORTED during the Year 1868, as returned by the Customs Department.

1,657,498 ozs.

NOTE.—In addition to the above, 303,214 ozs. 17 dwts. New Zealand gold have been shipped from this colony during the year.

No. 27.

RETURN showing approximately the GOLD obtained from QUARTZ VEINS and ALLUVIAL WORKINGS during the Year 1868.

From Quartz Veins	...	...	...	...	...	...	ozs. 587,694
From Alluvial Workings	...	...	...	...	...	...	1,069,804
Total Gold Exported							1,657,498

NOTE.—The above results are but rough approximations. The Mining Surveyors and Registrars can furnish only estimates based on information afforded by the banks and gold-buyers, and on their own knowledge of the character of the workings in their districts. The check on the returns—and not a sufficient one—is that afforded by the returns of quartz and quartz tailings crushed, which, however, cannot and do not comprise information respecting all the vein stuff put through the mills.

No. 28.

RETURN of the Number of **GOLD MINING LEASES** in force on the 31st December, 1868, together with the Extent of Ground Leased, and the Proposed Capital to be employed in working the said ground.

Mining Districts.					Number of Leases.	Extent.			Total Capital Proposed.
						A.	R.	P.	£
Ballarat District...	...	...	...	...	63	3,059	2	13	568,300
Beechworth District	...	...	...	...	141	4,719	1	4	855,050
Sandhurst District	...	...	...	...	443	2,917	3	2	770,980
Maryborough District	...	...	...	...	219	1,964	1	26	470,200
Castlemaine District	...	...	...	...	114	1,067	3	36	629,835
Ararat District ...	...	...	...	...	55	693	3	15	111,150
Gippsland District	...	...	...	...	69	914	3	12	351,067
Totals	...	...	...	...	1,104	15,337	2	28	3,756,582

NOTE.—The total number of Gold Mining Leases granted since the commencement is 3,570, containing 61,071a. 3r. 19p. The above table shows those only which were actually in force on the 31st December, 1868.

No. 29.

RETURN of the Number of **GOLD MINING LEASES** issued in the Year 1868, together with the Extent of Ground Leased, and the Proposed Capital to be employed in working the said ground.

Mining Districts.					Number of Leases.	Extent.			Total Capital Proposed.		
						A.	R.	P.	£	s.	d.
Ballarat District	...	...	...	...	30	1,547	0	25	433,200	0	0
Beechworth District	...	...	...	...	82	3,913	2	27	436,600	0	0
Sandhurst District	...	...	...	...	59	507	1	19	84,900	0	0
Maryborough District	...	...	...	...	97	839	0	13	176,100	0	0
Castlemaine District	...	...	...	...	31	313	3	24	131,204	0	0
Ararat District ...	...	...	...	...	46	773	0	23	79,050	0	0
Gippsland District	...	...	...	...	37	438	1	12	140,667	10	0
Totals	...	...	...	...	382	8,332	2	23	1,481,721	10	0

No. 30.**SUMMARY.**

AREA of **LAND** held as **CLAIMS** under the District Bye-laws, and the proportion of the same protected by Registration or by Exemption Certificates, in the several **MINING DISTRICTS**, on the 31st December, 1868.

Mining Districts.							Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked, being protected by Certificates.		
							A.	R.	P.	A.	R.	P.
Ballarat District	...	...	...	...	...	...	30,633	0	22	5,349	3	28
Beechworth District	...	...	...	...	...	...	43,052	2	0	25,148	2	0
Sandhurst District	...	...	...	...	...	...	4,488	2	30	555	3	24
Maryborough District	...	...	...	...	...	...	3,314	1	5	265	0	17
Castlemaine District	...	...	...	...	...	...	5,400	2	0	668	3	24
Ararat District	...	...	...	...	...	...	5,694	3	29	230	2	6
Gippsland District	...	...	...	...	...	...	8,357	3	9	422	3	39
Totals							100,941	3	15	32,641	3	18

NOTE.—The areas given in the second column are included in the first.

No. 31.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same not being worked, being protected by Registration or by Exemption Certificates, in the several DIVISIONS and SUBDIVISIONS, on the 31st December, 1868.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked, being protected by Certificates.		
		A.	R.	P.	A.	R.	P.
BALLARAT ...	Central Division ...	11,100	0	0	2,530	2	0
	Southern Division ...	1,622	2	26	356	2	15
	Buninyong Division ...	3,025	0	1	625	2	28
	Smythesdale Division ...	5,804	1	6	299	2	5
	Creswick Division ...	3,681	0	0	1,118	3	0
	Gordon Subdivision ...	2,530	0	0	259	0	0
	Steiglitz Subdivision ...	1,970	3	22	90	1	26
	Blackwood Division ...	820	2	20	69	1	34
	Blue Mountain South Subdivision ...	78	2	27	...		
	Totals ...	30,633	0	22	5,349	3	28
BEECHWORTH ...	Beechworth Subdivision ...	17,820	0	0	11,525	0	0
	Stanley Subdivision ...	482	0	0	44	0	0
	Yackandandah Subdivision ...	2,000	0	0	50	0	0
	Sandy Creek Subdivision ...	129	2	0	...		
	Indigo Division ...	18,800	0	0	13,190	0	0
	Buckland Division ...	1,323	0	0	219	0	0
	Jamieson North Subdivision ...	1,050	0	0	50	0	0
	Gaffney's Creek Subdivision ...	280	0	0	12	0	0
	Wood's Point Subdivision ...	230	0	0	9	2	0
	Big River Subdivision ...	273	0	0	5	0	0
	Mitta-mitta Division ...	400	0	0	40	0	0
	Jamieson South Subdivision ...	265	0	0	4	0	0
	Totals ...	43,052	2	0	25,148	2	0
SANDHURST ...	Sandhurst Division ...	2,911	2	30	211	3	24
	Kilmore Division ...	500	0	0	130	0	0
	Heathcote Division and Waranga South Subdivision ...	612	0	0	70	0	0
	Waranga North Subdivision ...	345	0	0	120	0	0
	Raywood Division ...	120	0	0	24	0	0
	Totals ...	4,488	2	30	555	3	24
MARYBOROUGH ...	Maryborough Division ...	1,227	2	5	51	1	38
	Amherst Division ...	480	0	0	36	0	0
	Avoca Subdivision ...	160	0	0	...		
	Dunolly and Tarnagulla Divisions ...	640	0	0	63	0	19
	Korong Division ...	577	0	0	69	0	0
	Redbank and St. Arnaud South Subdivisions ...	135	0	0	12	0	0
	St. Arnaud North Subdivision ...	94	3	0	33	2	0
	Totals ...	3,314	1	5	265	0	17
CASTLEMAINE ...	Castlemaine Division ...	1,263	2	0	123	0	24
	Fryer's Creek Subdivision ...	1,440	0	0	93	0	0
	Hepburn Division ...	2,100	0	0	269	3	32
	Taradale Subdivision ...	41	3	0	17	3	0
	Maldon Division ...	279	3	20	73	3	28
	St. Andrew's Division ...	165	3	18	37	1	20
	Kyneton Subdivision ...	14	3	2	1	3	0
	Blue Mountain North Subdivision ...	94	3	0	52	0	0
	Totals ...	5,400	2	0	668	3	24
ARARAT ...	Ararat Division ...	5,122	3	29	30	2	6
	Pleasant Creek Division ...	205	0	0	120	0	0
	Barkly Division ...	180	0	0	...		
	Raglan Division ...	187	0	0	80	0	0
	Totals ...	5,694	3	29	230	2	6
GIPPSLAND ...	Omeo Subdivision ...	549	2	20	159	2	10
	Mitchell River Subdivision ...	500	0	0	60	0	0
	Crooked River Subdivision ...	1,250	0	0	56	0	0
	Jericho Subdivision ...	240	0	0	5	0	0
	Donnelly's Creek Subdivision ...	89	3	4	12	1	21
	Stringer's Creek Subdivision ...	917	3	5	...		
	Russell's Creek Subdivision ...	4,310	2	20	30	0	8
	South Tarraville Subdivision ...	...			...
	Bendoc Subdivision ...	500	0	0	100	0	0
	Totals ...	8,357	3	9	422	3	39

No. 32.

SUMMARY.

ESTIMATED VALUE of the CLAIMS in the several MINING DISTRICTS on the 31st December, 1868.

Mining Districts.					Estimated Value of Claims.
					£
Ballarat District	...	...	...	...	2,158,900
Beechworth District	...	...	...	...	1,850,940
Sandhurst District	...	...	...	...	2,157,945
Maryborough District	...	...	...	...	1,066,494
Castlemaine District	...	...	...	...	802,995
Ararat District	...	...	...	...	579,400
Gippsland District	...	...	...	...	252,830
Totals	...	...	...	...	8,869,504

No. 33.

TABLE showing the ESTIMATED VALUE of the MINING CLAIMS in the several DIVISIONS and SUBDIVISIONS of each Mining District on the 31st December, 1868.

Mining Districts.			Mining Surveyors and Registrars' Divisions and Subdivisions.						Value of Claims.
									£
BALLARAT	...	{	Central Division	...	...	...	...	...	716,150
			Southern Division	...	...	...	...	...	76,200
			Buninyong Division	...	...	...	...	...	200,000
			Smythesdale Division	...	...	...	...	...	80,000
			Creswick Division	...	...	...	...	...	700,000
			Gordon Subdivision	...	...	...	...	...	278,650
			Steiglitz Subdivision	...	...	...	...	...	62,900
			Blackwood Division	...	...	...	...	...	45,000
			Blue Mountain South Subdivision	...	...	...	...	...	...
Totals						...	...	...	2,158,900
BEECHWORTH	...	{	Beechworth Subdivision	...	...	...	...	...	515,000
			Stanley Subdivision	...	...	...	...	...	10,440
			Yackandandah Subdivision	...	...	...	...	...	600,000
			Sandy Creek Subdivision	...	...	...	...	...	2,600
			Indigo Division	...	...	...	...	...	55,000
			Buckland Division	...	...	...	...	...	243,700
			Jamieson North Subdivision	...	...	...	...	...	230,000
			Gaffney's Creek Subdivision	...	...	...	...	...	60,000
			Wood's Point Subdivision	...	...	...	...	...	74,000
			Big River Subdivision	...	...	...	...	...	14,000
			Mitta-mitta Division	...	...	...	...	...	11,700
			Jamieson South Subdivision	...	...	...	...	...	34,500
Totals						...	...	...	1,850,940
SANDHURST	...	{	Sandhurst Division	...	...	...	...	...	1,963,445
			Kilmore Division	...	...	...	...	...	20,000
			Heathcote Division and Waranga South Subdivision	...	...	...	...	...	100,000
			Waranga North Subdivision	...	...	...	...	...	18,500
			Raywood Division	...	...	...	...	...	56,000
Totals						...	...	...	2,157,945
MARYBOROUGH	...	{	Maryborough Division	...	...	...	...	...	117,250
			Amherst Division	...	...	...	...	...	41,574
			Avoca Subdivision	...	...	...	...	...	250,000
			Dunolly and Tarnagulla Divisions	...	...	...	...	...	320,000
			Korong Division	...	...	...	...	...	250,000
			Redbank and St. Arnaud South Subdivisions	...	...	...	...	...	30,000
			St. Arnaud North Subdivision	...	...	...	...	...	57,670
Totals						...	...	...	1,066,494
CASTLEMAINE	...	{	Castlemaine Division	...	...	...	...	...	75,600
			Fryer's Creek Subdivision	...	...	...	...	...	95,300
			Hepburn Division	...	...	...	...	...	150,000
			Taradale Subdivision	...	...	...	...	...	73,265
			Maldon Division	...	...	...	...	...	328,980
			St. Andrew's Division	...	...	...	...	...	18,900
			Kyneton Subdivision	...	...	...	...	...	40,950
Blue Mountain North Subdivision	...	...	...	...	...	20,000			
Totals						...	...	...	802,995

No. 33.—TABLE showing the Estimated Value of Mining Claims, &c.—*continued.*

Mining Districts.			Mining Surveyors and Registrars' Divisions and Subdivisions.							Value of Claims.	
										£	
ARARAT	...	{	Ararat Division	...	...	...	...	...	...	31,000	
			Pleasant Creek Division	...	...	...	...	...	...	520,700	
			Raglan Division	...	...	...	...	...	...	8,700	
			Barkly Division	...	...	...	...	...	...	19,000	
			Totals		...	...	...	...	579,400		
GIPPSLAND	...	{	Omeo Subdivision	...	...	...	...	...	...	7,100	
			Mitchell River Subdivision	...	...	...	...	...	...	45,000	
			Crooked River Subdivision	...	...	...	...	...	...	25,000	
			Jericho Subdivision	...	...	...	...	...	...	14,100	
			Donnelly's Creek Subdivision	...	...	...	...	...	...	6,130	
			Stringer's Creek Subdivision	...	...	...	...	...	...	120,000	
			Russell's Creek Subdivision	...	...	...	...	...	...	23,500	
			South Tarraville Subdivision	...	...	...	...	...	...	...
			Bendoc Subdivision	...	...	...	...	...	12,000		
			Totals		...	...	...	...	252,830		

No. 34.

RETURN of MINERS' RIGHTS and BUSINESS LICENSES issued in Victoria during the Year 1868.

Place or District where issued.	MINERS' RIGHTS.											BUSINESS LICENSES.				Total Receipts.			
	1 Year at 5s.	2 Years at 10s.	3 Years at 15s.	4 Years at 20s.	5 Years at 25s.	6 Years at 30s.	7 Years at 35s.	8 Years at 40s.	10 Years at 50s.	15 Years at 75s.	Consolidated Miners' Rights.			Amount received.	6 Months at 50s.		Transfers at 10s.	Business Licenses ante-dated. Fee 25 p. cent. on License.	Amount received.
											Number.	Represent- ing Single Rights at 5s.	Miners' Rights an- te-dated. Fee 5s.						
														£ s. d.				£ s. d.	£ s. d.
Mining District of Ballarat ...	24,099	...	...	...	...	...	...	...	...	...	87	3,450	51	6,900 0 0	282	1	...	705 10 0	7,605 10 0
Mining District of Beechworth ...	8,511	3	1	2	...	...	...	...	...	...	51	612	3	2,285 15 0	387	...	...	967 10 0	3,253 5 0
Mining District of Sandhurst ...	5,451	5	1	13	...	1	...	...	...	...	...	...	7	1,382 5 0	342	...	...	855 0 0	2,237 5 0
Mining District of Maryborough ...	4,754	...	...	...	...	...	...	...	1	...	13	226	3	1,248 5 0	133	...	...	332 10 0	1,580 15 0
Mining District of Castlemaine ...	5,070	3	...	4	...	...	...	...	...	...	15	210	12	1,328 10 0	90	...	...	225 0 0	1,553 10 0
Mining District of Ararat ...	3,173	10	4	19	1	...	1	2	3	3	5	137	33	888 10 0	269	...	4	675 0 0	1,563 10 0
Mining District of Gippsland ...	1,846	...	...	...	...	...	...	...	...	...	23	105	2	488 5 0	50	...	...	125 0 0	613 5 0
Melbourne ...	464	2	...	1	...	...	...	...	...	...	23	108	...	145 0 0	6	...	...	15 0 0	160 0 0
Totals ...	53,368	23	6	39	1	1	1	2	4	3	222	4,848	111	14,666 10 0	1,559	1	4	3,900 10 0	18,567 0 0

No. 35.

SUMMARY.

LENGTH of WATER RACES constructed, and their APPROXIMATE COST, in the several MINING DISTRICTS, to 31st December, 1868.

Mining Districts.							Length of Races.		Approximate Cost.	
							miles. chains.		£	
Ballarat District	...	...	...	...	...	...	296	38	31,282	
Beechworth District	...	...	...	...	...	...	1,011	53	216,217	
Sandhurst District	...	...	...	...	...	...	45	30	1,769	
Maryborough District	...	...	...	...	...	...	418	32	11,097	
Castlemaine District	...	...	...	...	...	...	264	27	24,715	
Ararat District	...	...	...	...	...	...	131	60	6,643	
Gippsland District	...	...	...	...	...	...	266	20	18,547	
Totals	...	...	...	...	...	...	2,434	20	310,270	

No. 36.

TABLE showing the LENGTH of WATER RACES constructed, and their APPROXIMATE COST, in the several DIVISIONS and SUBDIVISIONS of each Mining District, to 31st December, 1868.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Length of Races.		Approximate Cost.	Remarks.
		miles.	chains.		
BALLARAT ...	Central Division	32	40	845	None constructed.
	Southern Division	2	5	110	
	Buninyong Division	11	0	330	
	Smythesdale Division	11	34	343	
	Creswick Division	108	49	13,535	
	Gordon Subdivision	7	0	180	
	Steiglitz Subdivision	50	0	7,000	
	Blackwood Division	73	70	8,939	
	Blue Mountain South Subdivision	
	Totals	296	38	31,282	
BEECHWORTH ...	Beechworth Subdivision	212	40	65,600	None constructed.
	Stanley Subdivision	122	20	57,380	
	Yackandandah Subdivision	240	0	43,200	
	Sandy Creek Subdivision	4	3	495	
	Indigo Division	12	0	800	
	Buckland Division	165	60	11,824	
	Jamieson North Subdivision	35	0	6,110	
	Gaffney's Creek Subdivision	39	0	6,864	
	Wood's Point Subdivision	18	30	5,400	
	Big River Subdivision	25	60	3,744	
	Mitta-mitta Division	120	0	12,000	
	Jamieson South Subdivision	17	0	2,800	
	Totals	1,011	53	216,217	
SANDHURST ...	Sandhurst Division	16	70	711	None constructed.
	Kilmore Division	16	40	750	
	Heathcote Division and Waranga South Subdivision	4	0	80	
	Waranga North Subdivision ... ..	...	...	...
	Raywood Division	8	0	228	
	Totals	45	30	1,769	
MARYBOROUGH ...	Maryborough Division	None constructed.
	Amherst Division	390	0	10,000	None constructed.
	Avoca Subdivision	22	72	687	
	Dunolly and Tarnagulla Divisions	1	40	60	None constructed.
	Korong Division	None constructed.
	Redbank and St. Arnaud South Subdivisions	None constructed.
	St. Arnaud North Subdivision	4	0	350	
	Totals	418	32	11,097	
CASTLEMAINE ...	Castlemaine Division	None constructed.
	Fryer's Creek Subdivision	15	0	1,500	None constructed.
	Hepburn Division	230	30	22,080	
	Taradale Subdivision ... ..	...	...	...
	Maldon Division	0	57	15	
	St. Andrew's Division	1	0	40	
	Kyneton Subdivision	1	20	50	
	Blue Mountain North Subdivision	16	0	1,030	
	Totals	264	27	24,715	
ARARAT ...	Ararat Division	4	60	23	None constructed.
	Pleasant Creek Division	8	40	340	
	Barkly Division	1	40	1,500	
	Raglan Division	117	0	4,780	
	Totals	131	60	6,643	
GIPPSLAND ...	Omeo Subdivision	93	0	6,290	None constructed.
	Mitchell River Subdivision	2	40	183	
	Crooked River Subdivision	46	0	1,380	
	Jericho Subdivision	13	10	3,520	
	Donnelly's Creek Subdivision	4	40	1,484	
	Stringer's Creek Subdivision	1	10	450	
	Russell's Creek Subdivision	6	0	240	
	South Tarraville Subdivision ... ..	...	...	...
	Bendoc Subdivision	100	0	5,000	
	Totals	266	20	18,547	

NOTE.—Several races which have been abandoned, owing to the ground being worked out, are not included in the above figures.
It will be observed that the cost of construction varies very considerably with the physical character of the country.

No. 37.

RETURN of the NUMBER of WATER-RIGHT LICENSES in force on the 31st December, 1868.

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Capital proposed to be invested.	Annual Rent.
	A. R. P.	miles. chains.	gallons.	A. R. P.	gallons.	£	£ s. d.
162	1,471 3 30	389 62 ⁴⁷ / ₁₀₀	176,711,560	325 2 37	237,582,092	178,874	1,000 10 0

No. 38.

THE NUMBER of WATER-RIGHT LICENSES for Gold Mining purposes issued during the Year 1868 is as follows :—

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Capital proposed to be invested.	Annual Rent.
	A. R. P.	miles. chains.	gallons.	A. R. P.	gallons.	£	£ s. d.
57	316 2 6	92 24 ³⁶ / ₁₀₀	77,270,260	26 1 21	9,730,000	57,822	422 0 0

No. 39.

SUMMARY.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1868, of sums lodged with the Wardens' Clerks of the several MINING DISTRICTS, as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Balance on hand on the 31st December, 1867.	Total Deposits received during the Year.	Total Disbursements made during 1868.	Balance on hand on 31st December, 1868.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballarat District	746 1 9	2,190 0 2	1,181 19 11	1,754 2 0
Beechworth District	* 1,451 14 6 ¹ / ₂	2,566 14 4	2,147 8 10	1,871 0 0 ¹ / ₂
Sandhurst District	796 13 11	1,215 0 5	1,113 14 3	898 0 1
Maryborough District	1,171 10 11	2,188 4 3	1,479 15 6	1,879 19 8
Castlemaine District	379 6 5	919 16 0	511 3 4	787 19 1
Ararat District	661 17 8	2,042 3 5	740 15 4	1,963 5 9
Gippsland District	1,212 17 0	338 16 10	752 16 9 ¹ / ₂	798 17 0 ¹ / ₂
Totals	* 6,420 2 2 ¹ / ₂	11,460 15 5	7,927 13 11 ¹ / ₂	9,953 3 8

* The difference between these figures and the balance on hand on the 31st December, 1867, as stated in last year's Statistics, consists of deposits amounting to £60 which were lodged at Alexandra in December, 1867, a return of which was not received in this office until after the Statistics for that year had been prepared.

No. 40.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1868, of Sums lodged with the Wardens' Clerks of the several DIVISIONS of the Mining Districts, as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Divisions.	Balance on hand 1st January, 1868.	Total Deposits received during the Year.	Total Disbursements made during 1868.	Balance on hand 31st December, 1868.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLARAT	Ballarat	418 10 7	667 5 0	727 4 10	358 10 9
	Buninyong ... ..	...	...	...	...
	Smythesdale	22 0 0	250 8 8	91 8 11	180 19 9
	Creswick	11 19 3	190 0 0	41 19 3	160 0 0
	Gordon ... ..	...	5 0 0	...	5 0 0
	Steiglitz	201 3 11	903 0 0	263 11 8	840 12 3
	Blackwood	82 8 0	159 6 6	47 15 3	193 19 3
	Clunes	10 0 0	15 0 0	10 0 0	15 0 0
	Totals	746 1 9	2,190 0 2	1,181 19 11	1,754 2 0
BEECHWORTH	Beechworth	680 7 1	608 18 4	823 17 7	465 7 10
	Yackandandah	15 5 9	171 0 0	15 5 9	171 0 0
	Chiltern	15 0 0	45 0 0	15 0 0	45 0 0
	Rutherglen ... ..	...	65 0 0	15 0 0	50 0 0
	Morse's Creek	172 19 5	158 2 6	163 16 7	167 5 4
	Jamieson	219 12 11 ¹ / ₂	90 0 0	81 9 6	228 3 5 ¹ / ₂
	Wood's Point	288 9 4	345 15 7	432 6 1	201 18 10
	Benalla ... ..	...	...	...	...
	Alexandra	*60 0 0	708 19 11	299 18 10	469 1 1
	Mansfield ... ..	...	373 18 0	300 14 6	73 3 6
	Totals	1,451 14 6 ¹ / ₂	2,566 14 4	2,147 8 10	1,871 0 0 ¹ / ₂

* This amount was not included in the receipts and disbursements for 1867, because the office was not then established.

No. 40.—Receipts, Disbursements, and Balances in hand during the Year 1868, of Sums lodged with the Wardens' Clerks, &c.—*continued.*

Mining Districts.	Divisions.	Balance on hand 1st January, 1868.	Total Deposits received during the Year.	Total Disburse- ments made during 1868.	Balance on hand 31st December, 1868.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
SANDHURST	Sandhurst ...	544 9 2	709 14 8	780 5 0	473 18 10
	Kilmore ...	49 13 5	45 0 0	15 0 0	79 13 5
	Heathcote ...	26 18 9	106 17 9	78 1 5	55 15 1
	Waranga ...	92 14 10	128 8 0	70 6 2	150 16 8
	Raywood ...	82 17 9	225 0 0	170 1 8	137 16 1
	Totals ...	796 13 11	1,215 0 5	1,113 14 3	898 0 1
MARYBOROUGH	Maryborough ...	115 2 6	370 0 0	163 10 9	321 11 9
	Majorca ...	104 2 11	135 0 0	97 18 0	141 4 11
	Talbot ...	125 5 0	426 4 0	181 17 6	369 11 6
	Carisbrook ...	7 15 0	...	7 15 0	...
	Avoca ...	99 16 3	300 0 0	106 3 0	293 13 3
	Dunolly ...	305 8 11	160 7 6	344 14 4	121 2 1
	Tarnagulla ...	143 9 6	211 12 9	210 10 1	144 12 2
	Korong ...	...	...	...	...
	Inglewood ...	100 8 9	220 0 0	133 0 0	187 8 9
	St. Arnaud ...	170 2 1	365 0 0	234 6 10	300 15 3
	Totals ...	1,171 10 11	2,188 4 3	1,479 15 6	1,879 19 8
CASTLEMAINE	Castlemaine ...	28 0 0	185 0 0	49 6 0	163 14 0
	Fryerstown ...	...	110 0 0	30 0 0	80 0 0
	Daylesford ...	35 5 2	299 16 0	62 19 0	272 2 2
	Taradale ...	24 13 5	...	14 18 11	9 14 6
	Maldon ...	162 1 6	200 0 0	136 5 0	225 16 6
	Anderson's Creek ...	83 14 9	125 0 0	191 7 3	17 7 6
	Gisborne ...	16 3 1	...	7 17 2	8 5 11
	Trentham ...	19 2 6	...	8 4 0	10 18 6
	Kyneton ...	10 6 0	...	10 6 0	...
	Totals ...	379 6 5	919 16 0	511 3 4	787 19 1
ARARAT	Ararat ...	20 0 0	427 3 5	214 1 6	233 1 11
	Beaufort ...	75 15 3	155 0 0	129 3 7	101 11 8
	Stawell ...	536 2 5	1,405 0 0	367 10 3	1,573 12 2
	Landsborough ...	30 0 0	55 0 0	30 0 0	55 0 0
	Totals ...	661 17 8	2,042 3 5	740 15 4	1,963 5 9
GIPPSLAND	Omeo ...	48 0 0	...	48 0 0	...
	Grant ...	212 17 3	83 12 7	269 3 10½	27 5 11½
	Bairnsdale ...	5 12 0	15 0 0	5 12 0	15 0 0
	Sale ...	35 0 10	...	35 0 10	...
	Palmerston ...	...	...	...	...
	Stringer's Creek ...	911 6 11	240 4 3	395 0 1	756 11 1
	Totals ...	1,212 17 0	338 16 10	752 16 9½	798 17 0½

No. 41.

RETURN of the QUANTITIES of GUNPOWDER issued, &c., on the several Goldfields during the Year 1868.

Mining Districts.	Quantity in Stock at the commencement of the Year.	Quantity Issued during the Year.	Quantity in Stock at the end of the Year.
	tons. cwt. qrs. lbs.	tons. cwt. qrs. lbs.	tons. cwt. qrs. lbs.
Ballarat District ...	9 19 3 3	59 5 2 24	12 7 3 2
Beechworth District ...	0 6 2 0	1 6 2 0	0 6 2 0
Sandhurst District ...	22 13 1 11	95 12 2 0	16 11 2 22
Maryborough District ...	11 19 2 6	17 17 2 13	7 13 3 21
Castlemaine District ...	5 2 1 23	22 11 0 13	5 8 2 23
Ararat District ...	6 4 1 9	17 16 1 0	4 16 1 20
Gippsland District ...	5 9 2 11	3 3 2 13	3 2 1 3
Totals ...	61 15 2 7	217 13 1 7	50 7 1 7

No. 42.

SUMMARY.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1868.

Mining Districts.					Number of Companies.	Number of Shares.	Nominal Capital.
							£
Ballarat District	...	...	...	...	166	478,740	2,174,925
Beechworth District	...	...	...	...	54	232,159	512,920
Sandhurst District	...	...	...	...	12	237,200	131,200
Castlemaine District	...	...	...	...	20	83,542	144,810
Maryborough District	...	...	...	...	46	146,286	394,230
Ararat District	...	...	...	...	25	37,458	311,553
Gippsland District	...	...	...	...	6	12,060	49,560
Totals	...	...	...	...	329	1,227,445	3,719,198

NOTE.—It appears from the returns forwarded by the Clerks of the Courts of Mines that twenty-five companies have been wound up, with 71,765 shares and a nominal capital of £186,055.

[For information relative to companies registered and companies wound up previous to 1st January, 1868, see Tables No. 42 and No. 43, *Mineral Statistics*, 1867.]

No. 43.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1868.

Mining Districts.					Courts.	Number of Companies.	Number of Shares.	Nominal Capital.
								£
BALLARAT ...	...	{	Ballarat	...	...	98	302,660	1,502,125
			Buninyong	...	...	31	85,420	284,300
			Smythesdale	...	...	9	22,380	77,360
			Creswick	...	...	14	40,300	219,600
			Steiglitz	...	...	7	17,200	52,840
			Mount Blackwood	...	...	7	10,780	38,700
			Totals	...	...	166	478,740	2,174,925
BEECHWORTH	...	{	Beechworth	...	...	6	33,200	162,000
			Yackandandah	...	...	...	...	...
			Rutherglen	...	...	2	14,000	22,000
			Morse's Creek	...	...	3	7,700	45,500
			Chiltern	...	...	4	14,379	52,520
			Jamieson	...	...	25	117,300	151,600
			Wood's Point	...	...	14	45,580	79,300
			Totals	...	...	54	232,159	512,920
SANDHURST	...	{	Sandhurst	...	...	11	236,000	126,400
			Kilmore	...	...	...	...	...
			Heathcote	...	...	1	1,200	4,800
			Rushworth	...	...	...	...	...
			Totals	...	...	12	237,200	131,200
CASTLEMAINE	...	{	Castlemaine	...	...	4	28,450	29,950
			Fryerstown	...	...	2	2,800	12,600
			Daylesford	...	...	5	10,580	27,660
			Taradale and Malmsbury	...	...	...	...	...
			Maldon	...	...	5	27,512	31,600
			St. Andrew's	...	...	4	14,200	43,000
			Kyneton	...	...	...	...	...
			Totals	...	...	20	83,542	144,810
MARYBOROUGH	...	{	Maryborough	...	...	2	22,000	22,000
			Amherst	...	...	10	24,590	128,600
			Avoca	...	...	13	30,096	110,930
			Dunolly	...	...	2	6,400	7,600
			Inglewood	...	...	2	2,800	10,400
			St. Arnaud	...	...	5	15,200	59,200
			Tarnagulla	...	...	12	45,200	55,500
			Carisbrook	...	...	...	...	...
			Totals	...	...	46	146,286	394,230
ARARAT ...	...	{	Ararat	...	...	2	1,294	17,410
			Pleasant Creek	...	...	22	36,084	293,343
			Beaufort	...	...	1	80	800
			Totals	...	...	25	37,458	311,553
GIPPSLAND	...		Sale	...	...	6	12,060	49,560

STATEMENT of the REVENUE directly derived from the Goldfields in each Year from 1851 to 1868 inclusive, compiled from the Treasury Statements of Revenue, &c.

Year.	Gold Licenses (including Store Licenses).	Miners' Rights.	Business Licenses.	Escort Fees.	Treasury and Custody Fees.	Export Duty.	Leases of Gold and Mineral Lands.	Other Leases and Licenses.	Other Gold Revenue.	Totals.
	£ s. d.	£ s. d.	£ s. d. { Store Licen- ses included in Column 1 }	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1851	21,776 19 11	...	...	2,626 12 8	...	...	...	...	23 3 8	24,426 16 3
1852	399,138 12 4	...	...	39,706 17 8	...	...	...	...	...	438,845 10 0
1853	660,883 11 5	...	...	52,439 1 0	7,542 6 2	...	...	...	...	720,864 18 7
1854	395,402 19 7	...	...	56,637 12 4	5,506 7 1	...	...	...	101 17 10	457,668 16 10
1855	39,821 1 7	49,507 0 0	19,969 10 0	20,509 12 2	2,136 6 9	231,482 12 11	3,517 15 0	...	...	366,943 18 5
1856	...	54,163 11 0	31,378 4 7	964 12 6	1,278 1 6	376,292 14 2	2,220 8 2	...	...	466,297 11 11
1857	...	54,029 0 0	18,342 10 0	1,058 14 8	...	340,062 16 0	4,279 3 3	...	...	417,772 3 11
1858	...	47,912 0 0	21,039 0 0	473 0 8	...	320,910 18 5	107 5 0	...	...	390,442 4 1
1859	...	47,554 0 0	19,583 0 0	345 0 0	...	286,883 0 7	...	...	...	354,365 0 7
1860	...	43,876 10 0	19,007 10 0	148 10 3	...	268,323 4 8	7,136 17 2	...	...	338,492 12 1
1861	...	36,216 0 0	19,065 0 0	94 0 7	...	245,929 13 10	9,329 5 9	...	...	310,634 0 2
1862	...	34,606 0 0	11,340 0 0	...	...	184,521 6 1	5,240 8 5	...	...	235,707 14 6
1863	...	28,696 0 0	10,020 0 0	...	...	121,508 19 8	6,093 11 11	...	...	166,318 11 7
1864	...	28,117 0 0	10,120 0 0	...	...	115,697 8 6	8,306 7 6	...	...	162,240 16 0
1865	...	25,231 0 0	7,795 0 0	...	...	102,752 7 8	15,218 5 4	...	...	150,996 13 0
1866	...	13,307 15 6	4,142 5 0	...	...	81,912 1 2	13,621 12 2	410 7 5	...	113,394 1 3
1867	...	11,567 18 9	3,556 17 6	...	...	35,843 7 1	12,497 8 3	575 10 0	...	64,041 1 7
1868	...	14,380 15 0	3,575 10 0	...	...	...	13,136 10 0	920 13 4	...	32,013 8 4
	1,517,023 4 10	489,164 10 3	198,934 7 1	175,023 14 6	16,463 1 6	2,712,120 10 9	100,704 17 11	1,906 10 9	125 1 6	5,211,465 19 1

NOTE.—The charges for Gold Licenses were as follow:—Up to the 1st September, 1858, 90s. per month; from 1st September to 1st December, 1858, 40s. for 3 months; and from the 1st December, 1858, to the 11th June, 1855, as follows: for 1 month, £1; 3 months, £2; 6 months, £4; and for 12 months, £8.

Miners' Rights were issued from the 12th June, 1855, at £1 per annum; and from the 1st January, 1866, at 5s. per annum.

The charges for Business Licenses were as follow:—From 1st December, 1853, for 3 months, £15; for 6 months, £25; and for 12 months, £50. From the 12th June, 1855, for 3 months, 50s.; for 6 months, £5; and for 12 months, £10. From the 1st January, 1866, for 6 months, £2 10s.; and for 12 months, £5.

The Export Duty on Gold was, from the 1st May, 1855, 2s. 6d. per oz.; from the 1st July, 1862, 2s. per oz.; from the

1st January, 1863, 1s. 6d. per oz.; from the 12th April, 1866, 1s. per oz.; and from the 1st January to the 31st December, 1867, 6d. per oz., when it ceased to be collected.

The Leasing of Auriferous Lands was first provided for by 18 Vic. No. 37, clause V.; and the Regulations under that Act fixed the rents for alluvial lands at £10 per acre per annum; and for quartz lodes, at £1 per lineal yard of reef. No leases were issued under that Act, but during the years 1855-8 deposits, on account of applications under the Regulations of 12th June, 1855, and 4th October, 1855, were received, to the amounts set down in the table. Under the Act 21 Vic. No. 32, leases were first issued. The rent charged up to 30th September, 1861, was—for alluvial land, £5 per acre per annum; and for lodes, £5 per 100 yards along the line of reef. From the 1st October, 1861, to the end of 1865, 50s. per acre per annum was the rent, whether for alluvial lands or quartz lodes; and from the 1st January, 1866, the rent has been £1 per acre per annum.

SANDHURST	Gaffney's Creek Subdivision	...	5 0 0	1 0 0	4 0 0	6 0 0	3 10 0	...	3 10 0	3 0 0	3 0 0	3 0 0	2 0 0	2 0 0
		...	to	to	to		to		to				to	to
	Wood's Point Subdivision	...	7 0 0	4 0 0	4 10 0		4 0 0		4 0 0	4 0 0			2 10 0	0
	Big River Subdivision	...	4 0 0	1 5 0	4 0 0	5 0 0	3 15 0	3 0 0	4 0 0	4 0 0	3 10 0	3 0 0	...	...
MARYBOROUGH	Mitta-mitta Division	...	...	...	...	...	...	...	4 0 0	4 0 0	3 5 0	3 0 0	...	...
	Jamieson South Subdivision	...	...	1 0 0	4 0 0	4 0 0	3 10 0	...	3 10 0	3 10 0	3 0 0	2 10 0	2 0 0	2 0 0
		...	...	to	to	to	to		to				to	to
		...	2 0 0	2 0 0		6 0 0	4 0 0		4 0 0				2 10 0	0
CASTLEMAINE	Sandhurst Division	...	6 0 0	0 15 0	4 0 0	2 15 0	2 10 0	2 10 0	2 10 0	3 0 0	2 5 0	2 2 0	0 12 0	...
		...	to		to	to	to	to	to	to	to	to	to	
	Kilmore Division	...	7 13 10		5 0 0	5 0 0	3 10 0	3 0 0	3 10 0	3 12 0	3 10 0	2 5 0	1 15 0	
	Heathcote Division and Waranga South Subdivision	...	...	1 0 0	3 0 0	2 10 0	2 5 0	2 0 0	2 10 0	2 10 0	2 7 6	2 0 0	1 10 0	1 10 0
CASTLEMAINE	Waranga North Subdivision	...	1 0 0	1 0 0	4 10 0	3 10 0	3 10 0	3 0 0	2 10 0	2 10 0	3 0 0	2 0 0	0 15 0	2 0 0
	Raywood Division	...	4 0 0	...	4 10 0	4 0 0	3 0 0	3 0 0	3 10 0	3 0 0	2 15 0	2 10 0	1 10 0	...
		...	3 0 0	1 0 0	2 15 0	3 10 0	3 0 0	2 5 0	2 10 0	3 10 0	2 5 0	2 5 0	1 5 0	...
	Maryborough Division	...	3 3 0	1 10 0	3 10 0	3 0 0	2 10 0	2 10 0	2 15 0	2 15 0	2 10 0	2 5 0	1 5 0	1 10 0
CASTLEMAINE	Amherst Division	...	...	...	3 0 0	2 2 0	2 2 0	...	2 10 0	3 0 0	...	2 0 0	1 10 0	...
		...	...	to	to	to	to		to			to	to	
	Avoca Subdivision	...	4 0 0	1 10 0	5 0 0	5 0 0	2 10 0	3 0 0	3 0 0	3 0 0	3 0 0	2 5 0	1 16 0	1 10 0
		...	to	to	to	to	to		to			to	to	
CASTLEMAINE	Dunolly and Tarnagulla Divisions	...	6 0 0	2 0 0	3 0 0	4 0 0	3 0 0	3 0 0	3 0 0	3 0 0	2 10 0	2 2 0	0 10 0	...
	Korong Division	...	3 10 0	0 10 0	3 5 0	3 5 0	3 0 0	2 10 0	3 0 0	2 10 0	2 10 0	2 10 0	1 10 0	...
	Redbank and St. Arnaud South Subdivisions	...	...	2 0 0	4 0 0	...	3 0 0	...	2 10 0	2 10 0	2 5 0	2 0 0	...	...
	St. Arnaud North Subdivision	...	...	...	...	3 12 0	2 10 0	2 10 0	3 0 0	3 0 0	2 5 0	2 10 0	0 15 0	...
CASTLEMAINE	Castlemaine Division	...	4 0 0	1 10 0	4 0 0	2 5 0	2 2 0	2 5 0	2 5 0	2 10 0	2 5 0	1 10 0	0 12 0	0 12 0
		...	to			to	to	to	to	to	to	to	to	to
	Fryer's Creek Subdivision	...	6 0 0			3 0 0	2 10 0	2 7 6	2 10 0		2 8 0	2 2 0	1 10 0	0 15 0
		...	...	...	3 0 0	3 0 0	2 5 0	2 5 0	2 5 0	3 0 0	2 5 0	2 0 0	1 0 0	1 10 0
CASTLEMAINE	Hepburn Division	...	...	1 0 0	3 0 0	3 0 0	2 10 0	...	2 10 0	2 10 0	2 5 0	2 2 0	1 15 0	...
		...	to	to	to	to	to		to				to	
		...	2 0 0	2 0 0	5 10 0		3 0 0	3 0 0	3 0 0	3 0 0	2 10 0	2 5 0	0 15 0	...
		...											1 10 0	1 10 0

* Blacksmith also acting as Engineer.

† General Manager acting also as Mining Manager and Engineer.

No. 46.

THE PRICES OF MINING MATERIALS in the more important Mining centres are as follow :—

BALLARAT.—Castings : Iron puddling-machines, 15s. per cwt. ; iron harrows, 15s. per cwt. ; lift pumps, from 6 in. to 22 in., including workings and connections, £1 1s. per cwt. ; winding and pumping gear, £1 6s. per cwt. ; water-pipe, 13s. per cwt. ; stamping batteries, with iron frames and fittings connected with ten stamps, say 10 cwt. per head or per stamp or hammer, according to construction or design, 40 in. iron with wood framing, £30 to £35. Gas-pipe, $\frac{3}{4}$ in. to 2 in., 4d. to 1s. 6d. per foot. Iron rivets, £1 8s. to £2 10s. per cwt. Chains, round sizes, $\frac{1}{8}$ to 1 in., imported, £1 2s. to £2 5s. per cwt. ; made at Ballarat, £1 17s. 4d. to £5 12s. per cwt. Rope : flat wire, 3 in x $\frac{3}{8}$ in. to 4 in. x $\frac{3}{8}$ in., £3 5s. to £3 15s. per cwt. ; flat hemp, $4\frac{1}{2}$ in. to 6 in., £3 14s. per cwt. ; round Manilla, different sizes, £3 5s. per cwt. Powder, glazed blasting, £2 10s. to £2 14s. per 100 lbs. Fuze : single-tape, 9s. per doz. coils ; double-tape, 12s. to 13s. per doz. coils. Candles, sperm, 12s. per doz. lbs. Oil : olive, 6s. 6d. to 7s. per gall. ; colza, 5s. 6d. per gall. ; castor, 6s. 6d. to 7s. per gall. ; kerosene, 2s. 9d. per gall. Tallow, beef and mutton, £1 17s. 4d. per cwt. Quicksilver, 2s. 3d. per lb. Picks : single-ended, driving and sinking, £2 8s. to £2 14s. per doz. ; double-ended, £2 8s. to £3 per doz. Pick hilts, &c. : hickory, 13s. to 15s. per doz. ; colonial lightwood, 6s. to 10s. 6d. per doz. Shovels : long-handled, £3 to £4 per doz. ; D-handled, £2 8s. to £3 16s. per doz. ; Cornish socket-handled, £2 14s. per doz. Shovel handles : English, 18s. per doz. ; colonial, 10s. to 12s. per doz. White yarn : flax packing, 1s. 4d. to 1s. 6d. per lb. ; hemp packing, 10d. to 1s. 1d. per lb. Iron : Common, 14s. per cwt. ; best, Low Moor, £1 12s. to £1 17s. 4d. per cwt. Leather : Colonial, for pumps, 1s. to 2s. per lb. ; English, 2s. 3d. to 3s. per lb. ; belt leather, colonial, 2s. per lb. Gutta-percha : sheet, for pump clacks, 3s. 3d. per lb. ; tubing, &c., 4s. to 4s. 6d. per lb. Steel : cast, £2 16s. to £3 5s. 4d. per cwt. ; blister, £1 12s. to £2 16s. per cwt. ; shear, £3 5s. 4d. per cwt. ; spring, £1 17s. 4d. per cwt. ; Stubbs, No. 2, £3 14s. 8d. per cwt.

CRESWICK.—Castings : stamp-head and beds, 15s. to 17s. per cwt. ; wheels, &c., £1 4s. per cwt. Hemp rope, 3 in. to 8 in., £3 6s. 8d. per cwt. Blasting powder, 6d. to 8d. per lb. Fuze, 12s. to 13s. per doz. coils. Candles, 13s. per doz. lbs. Oil : colza, 6s. 6d. per gall. ; machine, 6s. 6d. per gall. Tallow, £1 11s. 3d. to £1 17s. 6d. per cwt. Quicksilver, 2s. to 2s. 2d. per lb. Picks, £2 8s. to £3 12s. per doz. Pick handles, 11s. to 16s. per doz. Shovels, long-handled, £3 to £4 4s. per doz. Leather, English, for pumps, 2s. 6d. per lb. Cotton waste, 7 $\frac{1}{2}$ d. to 8d. per lb. Iron, common, 16s. per cwt. Steel : cast, £3 5s. per cwt. ; blister, £2 16s. Sheet indiarubber, 4s. to 4s. 3d. per lb.

BUCKLAND.—Castings, plain, without extra work after being taken out of the sand, £1 8s. per cwt. Chain, small sizes, £2 12s. per cwt. Hemp and wire rope, £4 per cwt. Powder, coarse, for blasting, £3 6s. 8d. per 100 lbs. Indiarubber fuze, double, 15s. per doz. coils. Candles, sperm, good brands, 16s. per doz. lbs. Oils : colza, 8s. per gall. ; olive, 9s. per gall. ; Chinese, 7s. per gall. ; kerosene, 5s. 6d. per gall. Quicksilver, 3s. per lb. Picks, double-ended, £4 16s. per doz. ; single-ended, £4 10s. per doz. Handles, £1 2s. per doz. Shovels, £4 4s. to £4 16s. per doz. Leather : Colonial, 2s. 4d. per lb. ; English, 3s. 6d. per lb. Iron, common, £1 12s. 8d. per cwt. Steel : cast, £4 14s. 4d. per cwt. blister, £4 4s. per cwt. Carriage of the above goods from Melbourne may be averaged for the year at about £8 10s. per ton.

WOOD'S POINT.—Castings of white metal (hematite), stamp-heads, &c., £1 12s. per cwt. Rope, Manilla, £4 4s. per cwt. ; extra thickness, £4 10s. per cwt. Powder, best patent glazed, £4 4s. per 100 lbs. Fuze, 14s. per doz. coils. Candles, Nava, 16s. per doz. lbs. Oil : castor, 10s. per gall. ; olive, 11s. per gall. Quicksilver, 2s. 8d. per lb. Picks, mining picks (heads), 18s. per doz. lbs. Pick handles, £1 per doz. Shovels : long-handled, £5 5s. per doz. ; short-handled, £4 4s. per doz. Leather, belting and grain, 1s. 6d. per lb. Vulcanized indiarubber belting, 5 in. wide, four-ply, 4s. per foot. Iron, best, £1 17s. 4d. per cwt. Steel : Cast, £3 16s. per cwt. ; blister, £3 12s. per cwt.

SANDHURST.—Castings : stamp-heads, shoes, and bottoms, 17s. per cwt. ; general work, £1 per cwt. Chains : Rounds' patent flat, not used—too heavy, often requires mending ; ordinary, £2 per cwt. Rope, Manilla, 3 in. to 6 in., £3 10s. per cwt. Powder, Hall's, £2 16s. 3d. per cwt. Fuze, Bickford and Co.'s double-tape (by the cask), 11s. 6d. per doz. coils. Candles, sperm, 12s. to 14s. per doz. lbs. Oil : kerosene, 2s. 9d. per gall. ; neatsfoot, 6s. 6d. per gall. ; other oil (average), 7s. per gallon. Tallow, beef and mutton, mixed specially for machine purposes, £1 8s. per cwt. Quicksilver, 2s. 2d. per lb. Picks, hammer-headed, £2 2s. per doz. Pick hilts (colonial woods), 9s. per doz. Shovels : American long-handled, Amess' No. 3, £4 10s. per doz. ; Carr's, £3 10s. per doz. Leather : Colonial sides (good), 1s. 2d. per lb. ; English butts, 2s. 3d. to 3s. 3d. per lb. White yarn, for lamps, 3s. 6d. per lb. Cotton waste, for cleaning, 7d. to 9d. per lb. Hemp flax, for packing, £9 16s. ; some at £6 per cwt. Iron, best, 17s. per cwt. Steel, £2 18s. per cwt. ; blister, £2 16s. per cwt. Gun-cotton, 15s. 6d. per box of 125 charges.

MARYBOROUGH.—Castings : whim and truck wheels, £1 5s. per cwt. Chains, short links, $\frac{3}{8}$ in. to 1 in., £2 per cwt. Rope, Manilla, $\frac{1}{2}$ in. to 6 in., £3 10s. per cwt. Powder, blasting, £3 7s. per 100 lbs. Fuze, double-tape, 13s. per doz. coils. Candles, sperm, 12s. per doz. lbs. Oil : colza, 7s. per gall. ; castor, 7s. 6d. per gall. ; olive, 8s. 6d. per gall. Tallow : mutton, £1 16s. per cwt. ; beef, £1 10 to £1 16s. per cwt. Quicksilver, 2s. 6d. per lb. Picks, driving and sinking, single ends, weight, 3 to 6 lbs., £1 10s. to £3 per doz. Pick hilts, &c., colonial principally, 9s. per doz. Shovels, American principally, £3 6s. to £3 12s. per doz. Leather, English hide, 2s. 7d. per lb. Iron, best BBH, 18s. per cwt. Steel : cast, £3 5s. 4d. per cwt. ; blister, £2 7s. per cwt. ; shear, £2 16s. per cwt.

CASTLEMAINE.—Castings : for stamping batteries, 18s. per cwt. ; wheels, £1 3s. per cwt. ; pipes, 14s. to £1 per cwt. Rope, Manilla, £3 19s. per cwt. Powder, blasting, £3 2s. 6d. per 100 lbs. Fuze, double-tape, 13s. per doz. coils. Candles, sperm, 13s. 6d. per doz. lbs. Oil : colza, 8s. per gall. ; olive, 9s. per gall. ; castor, 7s. 6d. per gall. Tallow, £2 16s. per cwt. Quicksilver, 2s. 4d. per lb. Picks, driving, £2 8s. per doz. Pick hilts, &c., 16s. per doz. Shovels : American, £3 5s. per doz. ; Cornish, 11d. per lb. Leather : Colonial, 1s. to 1s. 1d. per lb. ; English, 3s. per lb. Cotton waste, 9d. per lb. Hemp, packing, 2s. per lb. Iron, BBH, 17s. per cwt. Steel : cast, £3 10s. per cwt. ; blister, £2 16s. per cwt.

MALDON.—Castings : stamp-heads, 18s. to £1 per cwt. Chains, common, $\frac{3}{8}$ in. to $\frac{7}{8}$ in., £2 2s. per cwt. Rope, Manilla, 8 in., £3 8s. per cwt. Powder, Hall's, £3 2s. 6d. per 100 lbs. Fuze, Bickford's, 13s. per doz. coils. Candles : tallow, 1s. 4d. per lb. ; sperm, 14s. per doz. lbs. Oil : colza, 6s. 9d. per gall. ; castor, 6s. 6d. per gall. Tallow, mutton and beef, £1 17s. 4d. per cwt. Quicksilver, 2s. 6d. per lb. Picks, hammer-headed, 10d. per lb. Pick hilts, 9s. to 12s. per doz. Shovels : long-handled, £3 18s. per doz. ; English, short-handled, £3 6s. per doz. Leather, English hide, 2s. 6d. per lb. Cotton waste, 1s. per lb. Hemp, engine packing, £11 4s. per cwt. Iron, 18s. per cwt. Steel : cast, £2 16s. per cwt. ; blister, £2 16s. per cwt.

ARARAT.—Castings : fire-bars, truck wheels, &c., £1 5s. per cwt. Rope, Manilla, 7 in., £3 14s. 6d. per cwt. Powder, blasting, £2 15s. per cwt. Fuze, 14s. per doz. coils. Candles, stearine, 13s. per doz. lbs. Oil : colza, 6s. 6d. per gall. ; olive, 7s. per gall. ; kerosene, 2s. 8d. per gall. Tallow, beef, £1 18s. per cwt. Picks, common driving, £2 2s. per doz. Pick handles, she-oak, 7s. 6d. per doz. Shovels, short-handled, £3 6s. per doz. Leather, English butts, £2 15s. Hemp, £7 15s. per cwt. Iron, best wrought, 16s. 6d. per cwt. Steel, cast, £2 15s. per cwt.

No. 47.

TABLE showing approximately the QUANTITY and COST of TIMBER consumed annually for Mining Purposes in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

							£	s.	d.
BALLARAT	...	...	Firewood, &c.	...	...	426,633 tons	...	...	...
			Props and Cap-pieces	...	...	2,447,683 pieces	...	...	...
			Laths and Slabs	...	...	4,547,875 pieces	...	288,363	6 8
			Sawn Timber	...	...	6,454,645 feet	...	...	...
BEECHWORTH	...	...	Firewood, &c.	...	...	52,518 tons	...	...	...
			Props and Cap-pieces	...	...	109,142 pieces	...	...	...
			Laths and Slabs	...	...	655,625 pieces	...	31,486	16 4
			Sawn Timber	...	...	514,390 feet	...	...	...
SANDHURST	...	...	Firewood, &c.	...	...	108,750 tons	...	...	...
			Props and Cap-pieces	...	...	1,007,330 pieces	...	...	...
			Laths and Slabs	...	...	844,900 pieces	...	72,467	19 4
			Sawn Timber	...	...	662,870 feet	...	...	...
MARYBOROUGH	...	...	Firewood, &c.	...	...	80,484 tons	...	...	...
			Props and Cap-pieces	...	...	397,792 pieces	...	...	...
			Laths and Slabs	...	...	794,400 pieces	...	41,416	12 4
			Sawn Timber	...	...	815,150 feet	...	...	...
CASTLEMAINE	...	...	Firewood, &c.	...	...	125,510 tons	...	...	...
			Props and Cap-pieces	...	...	198,525 pieces	...	...	...
			Laths and Slabs	...	...	153,575 pieces	...	47,085	17 2
			Sawn Timber	...	...	673,750 feet	...	...	...
ARARAT	...	...	Firewood, &c.	...	...	163,317 tons	...	...	...
			Props and Cap-pieces	...	...	99,305 pieces	...	...	...
			Laths and Slabs	...	...	213,200 pieces	...	46,269	8 0
			Sawn Timber	...	...	631,900 feet	...	...	...
GIPPSLAND	...	...	Firewood, &c.	...	...	13,345 tons	...	...	...
			Props and Cap-pieces	...	...	19,081 pieces	...	...	...
			Laths and Slabs	...	...	15,614 pieces	...	9,273	3 0
			Sawn Timber	...	...	145,748 feet	...	...	...
Total Cost							536,363	2 10	...

No. 48.

THE FOLLOWING PARTICULARS which have been collected by the Mining Surveyors and Registrars relate to the weight and cost of the Stamp-heads and Shanks or Lifters made use of in some of the principal Gold Mines in the several Mining Districts, and supply additional information connected with the process of crushing quartz.

In the BALLARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 3 cwt. 1 qr. to 8 cwt., and the cost is from £4 5s. to £17. The height the stamp-head falls ranges from 7 to 10 inches. The number of strokes made by stamp-heads per minute is from 50 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 18 cwt. to 3 tons 10 cwt. The number of holes per square inch in the gratings used is from 40 to 224.—(The latter number is made use of by the New North Clunes Company at Clunes.) The horse-power required to work each stamper is from 1 to 1½. The quantity of water used per stamp-head in crushing varies from 220 gallons to 600 gallons per hour. The quantity of mercury used in the ripples per stamper is from 5 to 110 lbs.—(The latter quantity is used by the New North Clunes Company at Clunes.) The quantity of mercury lost per stamp-head per week is from *nil* to 8 ozs.

In the BEECHWORTH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. to 7 cwt. 3 qrs., and the cost is from £6 to £23 12s. per head. The height the stamp-head falls ranges from 5 to 16 inches. The number of strokes made per minute is from 45 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 4 tons. The number of holes per square inch in the gratings used is from 65 to 144. The horse-power required to work each stamper is from 0.75 to 2. The quantity of water used per stamp-head in crushing varies from 70 to 480 gallons per hour. The quantity of mercury used in the ripples per stamper is from 5 to 70 lbs. The quantity of mercury lost per stamp-head per week is from *nil* to 8 ozs. (One engine is reported to use as much as 1800 gallons of water per stamp-head per hour, but this appears to be excessive).

In the SANDHURST MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. to 8 cwt., and the cost is from £5 to £20. The height the stamp-head falls ranges from 8½ to 18 inches. The number of strokes made per minute is from 45 to 72. The quantity of quartz crushed per head per diem of 24 hours varies from 15 cwt. to 3 tons. The number of holes per square inch in the gratings used is from 64 to 130. The horse power required to work each stamper is from 0.75 to 1. The quantity of water used per stamp-head in crushing varies from 211 to 515 gallons per hour. The quantity of mercury used in the ripples per stamper is from 10 to 40 lbs. The quantity of mercury lost per stamp-head per week is from *nil* to 4½ ozs.

In the MARYBOROUGH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. to 7 cwt. 2 qrs., and the cost is from £6 to £20. The height the stamp-head falls ranges from 8 to 12 inches. The number of strokes made per minute is from 60 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1½ to 3 tons. The number of holes per square inch in the gratings used is from 60 to 140. The horse-power required to work each stamper is from 0.83 to 1.75. The quantity of water used per stamp-head in crushing varies from 200 to 1166 gallons per hour. The quantity of mercury used in the ripples per stamper is from 12 to 25 lbs. The quantity of mercury lost per stamp-head per week varies from ½ to 8 ozs.

In the CASTLEMAINE MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 2 cwt. 2 qrs. to 7 cwt. 2 qrs., and the cost is from £3 to £40. The height the stamp-head falls ranges from 6 to 15 inches. The number of strokes made per minute is from 35 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 4 tons. The number of holes per square inch in the gratings used is from 64 to 160. The horse-power required to work each stamper is from 0.5 to 2. The quantity of water used per stamp-head in crushing varies from 27 to 650 gallons per hour—a few machines are reported to use less water than the minimum here given. The quantity of mercury used in the ripples per stamper is from 6 lbs. to 37½ lbs. The quantity of mercury lost per stamp-head per week varies from *nil* to 8 ozs.

In the ARARAT MINING DISTRICT the stamp-heads with shanks or lifters vary in weight from 5 cwt. to 7 cwt., and the cost is from £5 to £10. The height the stamp-head falls ranges from 6 to 10 inches. The number of strokes made per minute is from 60 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 5 cwt. to 1 ton 10 cwt. The number of holes per square inch in the gratings used is from 100 to 121. The horse-power required to work each stamper is from 0.6 to 1.5. The quantity of water used per stamp-head in crushing varies from 120 to 480 gallons per hour. The quantity of mercury used in the ripples per stamper is from 6 to 47 lbs. The quantity of mercury lost per stamp-head per week varies from 1½ oz. to 8 ozs.

In the GIPPSLAND MINING DISTRICT the stamp-heads with shanks or lifters vary in weight from 3 cwt. to 8 cwt., and the cost is from £6 to £17 12s. (N.B.—In one engine the weight of each stamp-head with shank or lifter is 1 ton, the cost £90, and the nominal horse-power required per stamp-head 0.75). The height the stamp-head falls ranges from 7 to 11 inches. The number of strokes made per minute is from 70 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 10 cwt. to 2 tons 1 cwt. The number of holes per square inch in the gratings used is from 70 to 250.—(The latter number is made use of by the Good Hope Company at Crooked River). The horse-power required to work each stamper is from 0.83 to 1.875. The quantity of water used per stamp-head in crushing varies from 120 to 390 gallons per hour. The quantity of mercury used in the ripples per stamper is from 12 to 40 lbs. The quantity of mercury lost per stamp-head per week varies from 1 oz. to 5 ozs.

No. 49.

NAMES, LOCALITIES, AREAS, STORAGE CAPACITIES, &c., of GOVERNMENT RESERVOIRS on the Goldfields completed or in progress 31st December, 1868.

Name of Reservoir.	Where Situated.	Area.	Storage Capacity.	Drainage Area.	Actual or Estimated Cost, exclusive of Inspection, on Completion of Reservoir.	Actual or Estimated Cost of Construction, exclusive of Inspection, per Million Gallons.	Average Cost of Earth-work and Puddle-wall, per Cubic Yard.	Maximum Height of Banks.
		A. R. P.	gallons.	A. R. P.	£ s. d.	£ s. d.	s. d.	Feet.
<i>Reservoirs completed as follow:</i>								
Commissioners' Gully	Chewton ...	3 0 28	7,000,000	573 0 0	1,202 16 3	171 17 0	2 1	19.50
Dunolly	Dunolly ...	15 2 12	17,200,000	438 0 0	1,912 5 6	111 3 0	5 0½	15.00
Inglewood	Old Inglewood	3 2 20	5,670,000	80 0 0	1,111 12 6	195 18 0	2 3¾	19.98
Ditto	New Inglewood	11 2 28	13,000,000	300 0 0	1,610 0 9	123 17 0	2 2¾	13.25
Blackwood	Ballan ...	20 2 11	64,441,237	11,078 0 0	1,089 16 8	16 18 0	1 9½	35.00
Quartz Reefs (1)	Stawell ...	2 2 38	9,725,627	160 0 0	1,080 4 0	111 2 0	1 10½	19.69
Pleasant Creek (3)	Ditto ...	11 1 29	7,905,750	2,240 0 0	775 3 9	98 2 0	2 10	9.01
Four Posts (9)	Ditto ...	3 0 32	3,100,000	392 0 0	802 0 0	258 14 2	2 7	11.07
Hepburn	Hepburn ...	12 3 0	31,284,413	2,067 0 0	2,526 14 4	80 15 0	2 9¾	43.35
Smythesdale	Smythesdale ...	33 0 0	35,937,000	24,320 0 0	892 4 9	24 17 0	2 0¾	12.30
Maryborough	Maryborough	4 3 6	8,100,000	463 0 0	1,065 5 0	131 10 0	1 10½	14.70
Grassy Flat (1)	Sandhurst ...	26 3 2	56,860,375	...	4,002 17 2	70 7 0	2 1½	28.80
Ditto (2)	Ditto ...	20 1 30	26,769,369	1,800 0 0	1,754 16 6	65 9 0	1 8½	19.70
Buninyong	Buninyong ...	5 0 23	10,462,485	2,080 0 0	1,047 2 6	100 2 0	2 2¾	18.16
Creswick	Creswick ...	13 0 0	35,392,500	600 0 0	1,077 0 0	30 8 0	2 1¼	24.37
Maldon	Maldon ...	2 2 3	8,591,504	148 0 0	1,385 15 0	161 3 0	2 8	21.23
St. Arnaud	St. Arnaud ...	21 1 0	40,600,000	2,300 0 0	2,903 0 0	71 0 0	*	18.45
Kilmore	Kilmore ...	12 0 0	14,466,000	409 0 0	844 13 4	58 7 9	1 6½	25.39
Oliver's Gully	Ararat ...	7 0 38	19,615,554	840 0 0	1,730 18 0	88 6 0	2 1	23.74
Amherst	Amherst ...	11 1 0	† 13,813,284	2,500 0 0	1,193 7 7	86 9 0	2 4½	12.00
Wedderburne	Wedderburne	3 2 0	3,100,000	500 0 0	992 8 1	320 2 7	2 3½	12.69
Tarnagulla	Tarnagulla ...	4 0 10	5,000,000	81 0 0	1,167 14 2	233 10 10	1 10½	15.59
Opossum Gully No. 3	Ararat ...	7 3 0	24,621,547	960 0 0	1,831 6 0	74 8 0	2 1	28.59
Campbell's Reef (6)	Moyston ...	5 0 0	5,400,000	528 0 0	1,054 9 2	195 5 5	2 5	12.03
Beaufort	Beaufort ...	38 1 17	85,881,110	1,600 0 0	1,590 14 1	18 10 0	2 5¾	16.07
Carngham	Carngham ...	21 0 0	17,151,750	2,714 0 0	750 0 0	43 17 0	2 4	14.60
Yaekandandah (1)	Yaekandandah	4 2 21	14,819,521	...	2,036 13 2	137 11 0	1 11¼	39.58
Ditto (2)	Ditto ...	5 1 5	20,674,450	2,440 0 0	2,394 5 6	115 16 0	1 10	36.47
Lamplough	Lamplough ...	6 0 0	9,261,946	379 0 0	1,232 8 3	133 0 0	2 4½	14.00
Sandy Creek	Ovens ...	29 2 0	70,000,000	16,000 0 0	2,835 4 0	40 10 0½	2 0	35.15
Redbank	Redbank ...	9 3 30	27,100,000	815 1 37	2,785 8 6	102 15 8	2 0½	27.49
Crocodile Gully	Fryer's Town	3 1 0	5,407,462	450 0 0	767 3 0	142 0 0	2 0¾	21.66
Spring Gully	Ditto ...	3 0 16	7,000,000	383 0 0	949 5 6	135 11 0	2 2	22.75
Kineardineshire (3)	Indigo ...	4 2 28	4,278,937	120 0 0	472 3 4	110 5 0	2 1¾	8.52
Durham (2)	Ditto ...	4 2 0	8,712,000	60 0 0	475 2 6	54 12 0	2 1	8.43
Suffolk (1)	Ditto ...	6 0 0	1,701,562	250 0 0	436 15 11	257 0 0	2 2½	9.50
Pleasant Creek (2)	Stawell ...	14 0 0	17,000,000	4,800 0 0	†	...	...	12.01
Dinah Flat	Forest Creek...	8 0 0	22,842,200	1,190 0 0	640 12 6	28 0 0	1 10¾	20.08
<i>Reservoirs in course of construction, viz.:</i>								
Coliban	Malmsbury ...	607 0 0	4,500,000,000	64,000 0 0	78,954 12 1	17 10 11	1 9¾	56.33
Spring Gully	Sandhurst ...	44 0 0	250,000,000	460 0 0	11,965 3 0	47 17 2	1 11¼	51
Expedition Pass...	Forest Creek...	25 2 0	120,000,000	3,600 0 0	16,712 9 11	139 5 5	2 3¾	59
Barker's Creek	Harecourt ...	127 1 0	500,000,000	3,429 0 0	28,145 3 4	56 5 9	1 9½	49
Stony Creek	Brisbane Ranges, near Steiglitz	134 1 24	1,000,000,000	3,181 0 0	42,751 18 0	42 15 0	1 8¾	84
Myers' Creek	Myers' Flat, near Sandhurst	13 0 0	13,000,000	6,400 0 0	572 9 0	44 0 8	1 6	16

* No information as to cost of earthwork.

† Capacity increased to 76,000,000 gallons, with an area of 46 acres 3 roods.

‡ No information as to cost of works can be obtained.

MINERALS OTHER THAN GOLD.

No. 50.

RETURN of the NUMBER OF LEASES in force on the 31st December, 1868, for the purpose of Mining for Metals and Minerals other than Gold.

Names of Metals and Minerals.						Number of Leases.	Area.			Total Capital proposed to be invested.
							A.	R.	P.	£
Antimony	...	...	...	...	...	8	73	0	15	5,050
Coal	...	...	...	...	...	13	7,528	3	19	77,200
Copper	...	...	...	...	...	1	625	0	12	25,000
Lignite	...	...	...	...	...	3	647	1	15	3,500
Silver	...	...	...	...	...	9	588	0	39	34,800
Slate	...	...	...	...	...	3	219	3	39	12,900
Tin	...	...	...	...	...	2	158	0	16	3,000
Totals	...	...	...	...	...	39	9,840	2	35	161,450

No. 51.

RETURN showing the NUMBER OF LICENSES to Search for Metals or Minerals other than Gold issued during the Year 1868.

Names of Metals or Minerals.								Number of Licenses.	Extent of Ground held under Licenses.		
									A.	R.	P.
Coal	...	...	...	...	...	...	...	5	2,650	0	0
Copper	...	...	...	...	...	...	...	2	1,280	0	0
Galena (Argentiferous)	...	...	...	...	...	...	...	1	640	0	0
Kerosene shale	...	...	...	...	...	...	...	1	640	0	0
Tin	...	...	...	...	...	...	...	3	1,400	0	0
Totals	...	...	...	...	...	...	...	12	6,610	0	0

NOTE.—Fees are charged for Searching Licenses in accordance with the following scale :—

			£	s.	d.
For an area exceeding 320 acres, but not exceeding 640 acres, per annum	..	..	10	0	0
" 160 " " 320 " "	..	..	5	0	0
" 80 " " 160 " "	..	..	2	10	0
" 64 " " 80 " "	..	..	1	5	0
And for any area not exceeding 64 acres	..	..	1	0	0

(Vide Notice published in the *Government Gazette* of 2nd December, 1864.)

No. 52.

RETURN of the NUMBER OF MINERAL LEASES issued in the Year 1868, together with the Extent of Ground Leased, and the Proposed Capital to be employed in working the said ground.

Names of Metals and Minerals.						Number of Leases.	Area.			Total Capital proposed to be invested.
							A.	R.	P.	£
Antimony	...	...	...	...	...	1	30	0	11	400
Coal	...	...	...	...	...	12	6,714	3	1	60,200
Lignite	...	...	...	...	...	1	319	2	1	1,500
Silver	...	...	...	...	...	1	5	0	38	2,000
Tin	...	...	...	...	...	1	78	0	16	1,000
Totals	...	...	...	...	...	16	7,147	2	27	65,100

METALLIFEROUS MINERALS, COAL, LIGNITE, CLAYS, SLATES, AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

According to the returns made to the department the following quantities have been raised :—

	Silver Ores.		Silver.	
	tons.		ozs.	dwt.
Previously—up to 31st December, 1867	8,697		12,591	18
From 1st January to 31st December, 1868	2,651		5,761	10
Totals	11,348		18,353	8

The following statement of Exports has been received from the Customs Department :—

Year.							Silver Ores.		Silver.	
							tons.	cwt.	ozs.	dwt.
1861							10	6	...	...
1864 ... ..							...	...	4,207	15
1865 ... ..							...	...	4,954	0
1867 ... ..							...	...	366	2
1868 ... ..							...	...	5,604	9
Totals							10	6	15,132	6

Some of the gold got from the mines of St. Arnaud and Wood's Point was largely mixed with silver, but the latter was not separated. The mixed metal fetched from £2 5s. per oz. upwards. There is also a large amount of silver found associated with the gold in the quartz obtained from some recently opened reefs at Landsborough.

Up to the 31st December, 1868, forty-six leases of land had been granted, for an aggregate area of 2,000a. 3r. 26p. Of these, twenty-one have been declared void for non-fulfilment of covenants, and sixteen have been surrendered in order to obtain new leases. There were, therefore, only nine leases in force at the end of the year. The area comprised in these was 588a. 0r. 39p. The lease mentioned in last year's statistics, for a mine near Mount Buller, Goulburn, described as a copper and silver mine, has been declared void.

The mining surveyor at St. Arnaud states that the silver obtained from the Pioneer mines was got by amalgamation in Railey's pans, and not by smelting or roasting.

The manager of the St. Arnaud Gold and Silver Mining Company reports that, during the last quarter of the year, six men were employed prospecting the company's mine, but nothing payable was discovered or treated. He hopes to be in a position to work these leases with more vigor during the current year (1869).

A searching license was granted for twelve months, from April, 1868, to search for argentiferous galena and other ores, on an area of 640 acres, situated at Skipton. As far as regards argentiferous galena, no result appears to have been obtained, but the licensee has applied for a lease of the ground for working copper and tin.

TIN.

The following statement of exports has been received from the Customs Department :—

TIN ORE.					tons.	cwt.
Previously—up to 31st December, 1867					2,650	14
From 1st January to 31st December, 1868					220	7
Total					2,871	1
TIN.					lbs.	
Previously—up to 31st December, 1867					12,416	
From 1st January to 31st December, 1868					13,216	
Total					25,632	

Mr. Warden Butler, of Beechworth, reports as follows :—"The quantity of tin ore raised during the year in that portion of the district under my charge amounts to about 400 tons, its market value in England being £55 per ton, and "when clean for transport to Melbourne, £40 per ton. Eight tons which were smelted averaged 60 per cent. of tin, though "one company make their average 73 per cent. of white tin. Tin ore is obtained in the Woolshed Creek and all its "tributaries in large quantities."

Mr. Warden Pohlman, of Indigo, reports the discovery of black sand at the head of Indigo Creek, but no further particulars have been obtained.

There was only one lease for tin mining purposes in force on the 31st December, 1867, and one has been granted during 1868. The two leases comprise an aggregate area of 158a. 0r. 16p., situated at the heads of the Bunyeep. No work has been done, except of a preparatory kind, and latterly it has been at a stand-still, owing, it is reported, to bad management and insufficient knowledge of tin ore; but it is expected that operations will be resumed.

Three searching licenses have been granted during the year for an aggregate area of 1,400 acres, part near Emerald Creek, Dandenong Ranges, and part at Cardinia Creek, parish of Berwick. The result has not been reported. Application for a lease of 640 acres at Skipton has been made; the minerals to be worked are copper, tin, and gold.

COPPER.

Only one lease was in force on the 31st December, 1868, viz., that of the Thomson River Copper Mining Company (Registered), for 625a. 0r. 12p., on the Thomson River, Gippsland; one lease for 38a. 3r. 21p. on the Lick-Oh Creek, south of Mount Bulla, having been declared void for nonfulfilment of covenants. Two licenses were granted to search for copper on the Thomson River, on an area of 1,280 acres; and 388 acres have been applied for on lease, but the lease has not yet issued. Application has also been made for a lease of 640 acres at Skipton, for working copper and tin.

According to the returns received, the following quantities of copper ore have been raised :—

					tons.
Previously—up to 31st December, 1867	...	...	...	...	580
From 1st January to 31st December, 1868	...	...	...	...	about 275
Total	...	...	...	...	855

The manager for the tributors holding the Thomson River Company's lease reports that, since May last, operations have been suspended pending reorganization of the company. The returns from the mine from 1st January to 31st May were 39 tons 16 cwt, regulus and rough copper, realizing £1,127 4s. 3d.

The following statement of exports has been received from the Customs Department :—

					tons. cwt.
Previously—up to 31st December, 1867	...	...	...	...	31 7
From 1st January to 31st December, 1868 (copper and regulus)	...	...	...	...	41 18
Total	...	...	...	...	73 5

ANTIMONY.

There were nine leases in force on 1st January, 1868, for an aggregate area of 52a. 1r. 7p. During the year one lease for 30a. 0r. 11p. has been granted, and two leases have been declared void. The number of leases in force on the 31st December, 1868, was eight, for an aggregate area of 73a. 0r. 15p.; one lease for 30a. 0r. 11p., at Munster Gully, near Dunolly, and the remaining seven leases at Costerfield, in the Heathcote Division.

No searching licenses have been issued during the year.

According to the returns received, the following quantities have been raised :—

ANTIMONY ORE.					tons. cwt.
Previously—up to 31st December, 1867	...	...	...	...	2,821 0
From 1st January to 31st December, 1868	...	...	...	...	841 15
Total	...	...	...	...	3,662 15

The following statement of Exports has been received from the Customs Department :—

ANTIMONY ORE.					tons. cwt.
Previously—up to 31st December, 1867	...	...	...	...	1,990 19
From 1st January to 31st December, 1868	...	...	...	...	867 18
Total	...	...	...	...	2,858 17

The quantity raised during 1868 has been obtained from one mine at Costerfield, with the exception of 6 tons 15 cwt., which were got from the mine at Dunolly. Respecting this latter, Mr. Warden Orme reports :—" 5 tons 15 cwt. were sent in February last to the Sulphur and Antimony Company at Collingwood. A letter from the manager states, "that owing to the quantity of debris the antimony was absorbed in smelting. The lessees state, that the ore here is the "oxide and sulphide in combination, and in the proportion of three-quarters oxide to one-quarter sulphide. On the surface "the lode was about one foot wide, and at depth of five or six feet increased to two feet in width. It was well defined, and "continuous to a depth of eight feet; below that depth it became patchy, or intermixed with surrounding rock. The "antimony is found in patches from eight to twenty-four feet, the greatest depth yet arrived at; and at twenty-four feet "there is a well-defined back or wall of rock, which is considered to be a good indication of a better defined lode of antimony. "In the ore and adjacent rock gold has been found to the extent of 8 to 10 dwts. per ton, so far as at present tried."

COAL AND LIGNITE.

COAL.

According to the returns received from the lessees, 1,933 tons were raised up to 31st December, 1864, but since then nothing but a few samples have been obtained.

On the 31st December, 1867, there were three leases in force, for an aggregate area of 1,598a. 2r. 30p. During 1868 twelve leases have been granted and two have been declared void. The area under lease on 31st December, 1868, was 7,528a. 3r. 19p., and the number of leases in force thirteen.

Five searching licenses were granted for an aggregate area of 2,650 acres. No operations, except sinking and boring, have been reported.

LIGNITE.

According to returns received, it appears that the following quantities have been raised :—

					tons.
Previously—up to 31st December, 1867...	...	...	...	...	235
From 1st January to 31st December, 1868	...	...	...	...	nil.
Total	...	...	...	...	235

One new lease was granted during the year, and on the 31st December, 1868, there were three leases in force for an aggregate area of 647a. 1r. 15p.

No searching licenses were granted during the year.

The manager of the Patent Lignite Fuel Company, Lal-lal, reports as follows :—"We have sunk a shaft and "timbered it down to the drift overlying the lignite, but, having encountered a heavy flow of water, we had to abandon the "shaft, for want of a proper clay for 'puddling up' before getting through the drift. Since then the lease has been trans- "ferred to Messrs. Robertson and Wagner, and it is intended to very shortly resume active operations."

KEROSENE SHALE.

A searching license was granted during the year for one square mile of ground on the Kerosene Creek, Baw-baw Spurs. The license has expired, and has not been renewed. Result not reported.

CLAYS.

KAOLIN.

The only lease in force on the 1st January, 1868—that of the Dunolly Porcelain Company, for 7a. Or. 18p., near Dunolly has been declared void for non-fulfilment of the lease covenants.

No searching licenses were granted during the year.

According to returns, the following quantities have been raised :—

					tons.
Previously—up to 31st December, 1867	...	...	...	...	1,757
From 1st January to 31st December, 1868	...	...	...	...	Nil
Total	...	...	...	...	1,757

FLAGS AND SLATES.

FLAGGING.

According to the returns received it appears that the following quantities have been raised :—

					tons.	cwt.	sq. yds.
Previously—up to 31st December, 1867	...	...	...	...	500	15½	44,500
From 1st January to 31st December, 1868	...	...	...	...	700	0	13,000*
Totals	...	...	...	...	1,200	15½	57,500

* This includes about 2,160 yards for hearths and 2,000 yards for coring.

SLATES.

According to the returns received it appears that the following quantities have been raised :—

					slates.	tons.
Previously—up to 31st December, 1867	...	...	...	...	1,000	125
From 1st January to 31st December, 1868	...	...	...	...	Nil	35
Total	...	...	...	...	1,000	160

The flagging raised in 1868 has been got in the Castlemaine division, the slate at Pleasant Creek.

From Fryer's Creek Mr. Warden Heron reports :—" No flags or slates have been raised during 1868. I am informed " that it is not from the scarcity or bad quality of the slates, but from the inaccessible nature of the country, and the expense " of cartage, which prevent them from being raised."

Slate exists also in the Gisborne district, but there was none raised or quarried during 1868. The Victoria Slate Company's lease, for 11a. 2r. 21p., near Gisborne, has been declared void for non-fulfilment of covenants. One lease of 50 acres, on Monk Hill, Castlemaine, has also been declared void.

On the 31st December, 1868, there were three leases in force, of an aggregate area of 219a. 3r. 39p., viz., 150 acres at Meredith, 20 acres near Hepburn, and about 50 acres on Bald Hill, Pleasant Creek.

No searching licenses were granted during the year.

DIAMONDS.

The number reported to have been discovered is as follows :—

Previously—up to 31st December, 1867	...	...	...	...	...	58
From 1st January to 31st December, 1868	...	...	...	...	...	2
Total	...	...	...	...	...	60

Mr. Warden Butler, at Beechworth, reports :—" I can only learn of the discovery of two diamonds, one discovered by " Mr. Johnson, in Young's Creek, a tributary of the Woolshed Creek, which weighed three-fourths of a carat ; and the other " in the Woolshed Creek, by Mr. Phelan, but very small, and almost worthless in value."

Office of Mines,
Melbourne, 5th May, 1869.

R. BROUGH SMYTH,
Secretary for Mines.

APPENDIX I.

METALS (other than GOLD) and MINERALS and ORES IMPORTED into Victoria during the Year ending 31st December, 1868.

Description.	Quantity.	Value.
		£
Black Sand	3 tons 15 cwt.	75
Coal	135,225 tons	178,900
Coke and Fuel	201 tons 1 cwt.	711
Copper	9 tons 1 cwt.	837
Copper Ore	5 cwt.	25
Iron, Pig	4,045 tons 7 cwt.	16,934
Kerosene Shale	667 tons 9 cwt.	2,167
Lead and Pig Lead	677 tons 13 cwt.	14,187
Lead Ore	3 cwt.	2
Metal, Yellow	201 tons 11 cwt.	11,458
Quicksilver	1,448 bottles	10,941
Slates	1,950,207 No.	14,156
Slate Slabs	34 No.	44
Spelter	$\frac{1}{2}$ cwt.	2
Sulphur	111 tons 2 cwt.	1,635
Tin	26 tons 9 cwt.	2,033
Zinc	235 tons 18 cwt.	7,016
	Total	261,123

METALS (other than GOLD) and MINERALS and ORES EXPORTED from Victoria during the Year ending 31st December, 1868.

Description.	Quantity.	Value.
		£
Antimony Ore	867 tons 18 cwt.	6,952
Arsenic	5 cwt.	4
Black Sand	220 tons 7 cwt.	14,380
Coal	40 tons 8 cwt.	63
Coke and Fuel	29 tons 10 cwt.	128
Copper	68 tons 15 cwt.	3,357
Copper Ore	24 tons 6 cwt.	650
Iron, Pig	164 tons	993
Lead and Pig Lead	37 tons 5 cwt.	854
Metal, Yellow	70 tons 5 cwt.	5,324
Quicksilver	500 bottles	4,350
Silver	7,192 ozs. 12 dwts.	1,798
Slates	40,500 No.	407
Slate Slabs	34 No.	33
Spelter	96 tons 8 cwt.	1,737
Sulphur	38 tons 9 cwt.	751
Tin	15 tons 6 cwt.	1,323
Zinc	27 tons 7 cwt.	808
	Total	43,912

NOTE.—The figures in these tables are extracted from the returns just published by the Honorable the Commissioner of Trade and Customs. The statements include only raw materials. Thus pig-iron is included, but not bars, rods, plates, or castings; lead and lead ore, but not piping or sheet lead; and so in like manner the others. The returns published by the Customs Department necessarily include all. The quantities exported include metals, &c., not the produce of Victoria.

APPENDIX II.

RETURN showing the QUANTITY and VALUE of KEROSENE OIL IMPORTED into and EXPORTED from this Colony during the Years 1861–1868 inclusive. (From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Year.	IMPORTS.		EXPORTS.	
	Quantity.	Value.	Quantity.	Value.
		£		£
1861	113,903 galls.	32,960	14,397 galls.	4,824
1862	233,061 "	47,829	61,995 "	12,699
1863	403,161 "	61,851	93,722 "	16,885
1864	377,665 "	88,870	164,255 "	42,827
1865	617,742 " and 1,600 cases	116,047	196,121 "	38,463
1866	733,076 "	140,383	305,287 "	59,623
1867	89,825 " and 192,511 cases	199,544	403,252 "	57,217
1868	27,720 " 167,309 cases, and 130 $\frac{1}{2}$ -cases	120,014	436,171 "	47,367

1870.

VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1869.

26280
JUL 24 1870

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority :

JOHN FERRES, GOVERNMENT PRINTER, MELBOURNE.

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MEMORANDUM.

It was intended to have published the MINERAL STATISTICS for 1869 early in February, but some returns which were absolutely necessary for the completion of the Tables were unavoidably delayed.

The Report and Appendices have been carefully prepared, and the information they contain will be useful to the Miner, as well as interesting to those who pursue scientific investigations.

J. T. SMITH,

Minister of Mines.

Office of Mines,

Melbourne, 4th March 1870.

MINERAL STATISTICS, 1869.

THE officers of the Mining Department have exerted themselves zealously during the year in collecting information respecting the labors of the miners and the results of their efforts. Many valuable facts connected with the modes of occurrence of gold and other metals and minerals have been gathered; and some of the Wardens and Mining Surveyors, and gentlemen altogether unconnected with the Mining Department, have contributed highly interesting geological maps and sections, exhibiting better than could be done by verbal descriptions many of the obscurer phenomena of veins and auriferous and stanniferous deposits.

These in due time will be published.

GOLD.

According to the returns furnished by the Honorable the Commissioner of Trade and Customs, the quantities of gold exported during the years 1867, 1868, and 1869, are as follow:—

			ozs.	dwts.
1867	...	...	1,433,687	6
1868	...	...	1,657,498	0
1869	...	...	1,340,838	8

It would appear, therefore, that as compared with 1868 there is a decrease of 316,659 ozs. 12 dwts., and as compared with 1867 a decrease of 92,848 ozs. 18 dwts.

Up to the 31st December 1867 there was an export duty on gold, and persons exporting gold without paying the duty and, of course, recording the quantity exported at the Customs, were liable to heavy penalties; and whether under the present system all the quantities of gold exported are duly recorded is a question which need not be discussed here; but another estimate may be formed of the produce of our goldfields by contrasting the Customs returns with the figures furnished by the Mining Surveyors and Mining Registrars, whose information is derived from the books of the bank managers and gold buyers on the several goldfields. Their returns for the three years are as follow:—

			ozs.	dwts.
1867	...	...	1,788,059	0
1868	...	...	1,684,919	12
1869	...	...	1,544,757	8

Gold purchased.

As the Victorian goldfields on the west approach very closely the borders of South Australia, and on the north-east and east are separated from New South Wales but by a narrow stream and a line not yet marked in any way, it may safely be presumed that neither the quantities recorded as exported nor as purchased represent accurately the quantities actually raised by our miners; but for all purposes the quantity exported during the year will, as in past years, be used for comparison in the tables appended to this Report.

The mean number of miners employed in 1869 was 67,588, more by 4,407 than the mean number employed in 1868. The number employed in the last quarter of the year 1869 was 63,787, less by 871 than the number employed in the last quarter of 1868.

Number of
miners em-
ployed.

Chinese miners.

As regards the Chinese there is little change. The numbers employed in 1868 and 1869 were as follow:—

		1868.		1869.
Alluvial Miners	...	15,244	...	15,706
Quartz Miners	...	56	...	69
		<hr/>		<hr/>
		15,300		15,775
		<hr/>		<hr/>

The Chinese, as heretofore, continue to follow the European miners. The alluviums which have been forsaken by the Europeans as too poor to pay for sluicing are eagerly taken up by them, and their patience, their long hours of labor, and, it is just to add also, their skill, as evinced in the modes in which they use water and arrange their boxes and drains, serve to enable them to get gold in such quantities as to supply their necessities, to leave something for their pleasures, and something also to save.

Average earnings of miners.

Dividing the value of the gold exported amongst the mean number of miners employed during the year 1869, we find that their average earnings for the year were £79 7s. 0·87d. In 1868 the average, computed in the same way, was £104 18s. 8·75d.

These figures are not very encouraging; but it should be remembered that 1868 was remarkable for the large quantity of gold exported. Since 1860 the average earnings per man per annum have only in four years exceeded the average for 1869; namely, in 1860, 1866, 1867, and 1868.

The average earnings per man per annum of the alluvial miners and quartz miners severally (using the mean numbers employed throughout the year), from 1863 to 1869, are as follow:—

YEAR.			ALLUVIAL MINERS.			QUARTZ MINERS.				
			Numbers.	Earnings per Man per annum.			Numbers.	Earnings per Man per annum.		
				£	s.	d.		£	s.	d.
1863	...	...	76,343	59	7	10 $\frac{1}{4}$	16,024	123	3	9 $\frac{1}{2}$
1864	...	...	67,982	61	6	0	15,414	130	13	9 $\frac{3}{4}$
1865	...	...	65,484	66	16	3	17,730	101	10	5 $\frac{1}{2}$
1866	...	...	57,892	66	4	1	15,685	132	17	4 $\frac{3}{4}$
1867	...	...	51,719	67	10	7 $\frac{1}{4}$	14,138	158	11	8 $\frac{3}{4}$
1868	...	...	48,991	87	6	11 $\frac{1}{4}$	14,190	165	13	3 $\frac{1}{4}$
1869	...	...	51,024	63	11	2 $\frac{1}{2}$	16,564	128	0	0 $\frac{3}{4}$

Machinery employed.

The number of machines employed in alluvial and quartz mining in the several mining districts during the quarter ending 31st December 1869 is given in Table No. 10.

Comparing 1869 with the previous year, the steam-engines and stamp-heads are as follows:—

YEAR.			ALLUVIAL.		QUARTZ.		
			Number.	Aggregate Horse-power.	Number.	Aggregate Horse-power.	Number of Stamp-heads.
1868	...	...	441	9,844	602	11,045	5,997*
1869	...	...	408	9,650	677	12,796	6,352*

* Inclusive of stamp-heads used in crushing quartz and other vein-stuff, moved by other power than steam.

According to the returns made by the Mining Surveyors and Mining Registrars the estimated total value of the machinery and mining plant employed on the gold-fields on the 31st December 1869 was £2,108,669, showing a decrease of £41,763 as compared with 1868. Value of machinery.

The estimated value in each year for the several districts was as follows:—

DISTRICT.			1868.	1869.
			£	£
Ballarat	...	...	706,393	585,753
Beechworth	...	...	283,445	304,701
Sandhurst	...	...	418,738	426,338
Maryborough	...	...	227,348	284,882
Castlemaine	...	...	277,248	262,860
Ararat	...	...	117,451	115,296
Gippsland	...	...	119,809	128,839

It thus appears that the falling off is mainly in the Mining District of Ballarat. For Castlemaine and Ararat the estimates are a little under those of last year; but in every one of the other districts there is an increase.

The notes appended to Table No. 10 show in detail the changes which have taken place in the several districts as regards the description of machinery employed. The number of distinct quartz reefs is 2,881; and the extent of auriferous land opened up by the miners is $905\frac{3}{4}$ square miles. These figures compare favorably with those of last year, and serve to show that prospectors have not been idle. Quartz reefs and area of auriferous ground.

On the 31st December 1869 there were held as "claims" under the bye-laws of the several Mining Boards 84,196 a. 3 r. 29 p., of which 20,554 a. 1 r. 20 p. were lying idle, being protected from encroachment by registration or exemption certificates. Areas held as claims and under lease.

The area held under gold-mining leases on the same date was 44,843 a. 1 r. 13 p. This area, as compared with the area (15,337 a. 2 r. 28 p.) held under the same tenure on the 31st December 1868, is very large, and is evidence of the desire of the miners to obtain some secure hold of the auriferous lands before investing their capital and labor in exploring them.

The number of new leases (1,028) issued in 1869 was greater than that of any previous year, except in 1866 (1,040).

The following Table shows the amount of labor expended on all the leased lands respecting which returns have been furnished:— Labor covenants.

DISTRICTS.			Number of Leases.	Area.			Number of Men, as per covenant.	Number of Men actually employed, as per return.
				A.	R.	P.		
Ballarat	...	...	75	5,231	0	16	2,797	1,343
Beechworth	...	...	183	5,333	1	35	2,337	1,487
Sandhurst	...	...	241	1,905	3	30	1,647	1,598
Maryborough	...	...	277	7,237	2	20	2,690	972
Castlemaine	...	...	112	1,286	1	3	1,183	812
Ararat	...	...	131	2,849	2	18	1,661	591
Gippsland	...	...	34	459	3	0	332	86
Totals	...	...	1,053	24,303	3	2	12,647	6,889

Revenue derived
from the gold-
fields.

As compared with 1868 there is a large increase in the revenue derived from the goldfields. The increase is mainly in the item of rents of auriferous lands; the sums received from the sale of miners' rights, business licences, &c., being nearly the same as in the previous year.

Value of claims.

The value of claims in the several mining districts, as estimated by the Mining Surveyors and Mining Registrars on the 31st December in each year, was as follows:—

MINING DISTRICTS.			ESTIMATED VALUE OF CLAIMS.	
			31st December 1868.	31st December 1869.
			£	£
Ballarat	...	...	2,158,900	2,111,569
Beechworth	...	...	1,850,940	1,038,320
Sandhurst	...	...	2,157,945	2,299,305
Maryborough	...	...	1,066,494	1,028,284
Castlemaine	...	...	802,995	833,396
Ararat	...	...	579,400	729,100
Gippsland	...	...	252,830	499,267
Totals	...	...	8,869,504	8,539,241

Yield of gold
from quartz, &c.

Returns relative to certain parcels of quartz crushed in the several districts show that 883,422 tons 16 cwt. have yielded 459,634 ozs. 16 dwts. 15 grs., or an average of 10 dwts. 9·73 grs. per ton.

The total quantity crushed and respecting which information has been obtained since the first publication of the *Mineral Statistics* to the 31st December 1869 is 6,695,092½ tons, and the average yield is 11 dwts. 8·85 grs. per ton.

As illustrating the present condition of the Victorian goldfields in regard to the management of mines and the character of the machinery and appliances for reducing and treating auriferous quartz, the following statement, furnished by the District Mining Registrar of Ballarat, is highly interesting and valuable. He says:—
“The Black Hill Quartz-mining Company at Ballarat began work in January 1862, and from that time to the end of December 1869, embracing a period of eight years, they have obtained the quantities of quartz and gold set down hereunder:—

Quartz crushed	...	...	...	250,575 tons.
Gold got therefrom	...	...	...	36,185 ozs. 15 dwts. 19 grs.
Average per ton	...	...	...	2 dwts. 21·31 grs.
Total value of gold	...	...	...	£145,541 6s. 3d.
Total amount of dividends paid	...	...	...	£21,730
(Being 10 per cent. per annum on the capital.)				

The last dividend was paid in December 1868.”

This simple statement affords abundant encouragement to those who possess the knowledge and skill which are required in mining for quartz and in treating vein-stuff, and is worthy the consideration of those who say that our appliances for saving fine gold are defective, and that a new invention is the urgent requirement of the day. It would appear, judging from the results obtained at Black Hill, Clunes, and other well-managed mines and reducing works, that judgment, and care, and fidelity alone are needed to give excellent returns from even poor quartz.

The average yield of gold from certain parcels of quartz tailings, cement, mullock, &c., crushed in 1869, on 176,341 tons, is 3 dwts. 15·67 grs. of gold per ton.

From 1864 to 1869, inclusive, returns have been received relative to the yield from 1,169,854 tons 12 cwt. of tailings, mullock, &c., and the average is 4 dwts. 0·97 grs. of gold per ton.

During the year 1,400 tons 2 cwt. 1 qr. of pyrites and blanketings have been operated on, and the average is 3 ozs. 3 dwts. 19·65 grs. of gold per ton.

In the tables full information is given respecting the prices paid for crushing quartz, the weight and cost of stamp-heads, the quantity and the cost of timber used, wages for labor, and the prices of materials. Such statements have not much interest for the Victorian miner, though they are useful even to him, but in the neighbouring colonies and in Europe they are valued and carefully scrutinised.

Table No. 48 shows the quantities and value of the timber used in the several mining districts. Though it is no more than a careful estimate, based on returns collected by the Surveyors and Registrars, it is valuable. The quantities and cost are probably under-estimated. The total sum is £563,233 5s. The Mining District of Ballarat is set down for no less than £245,936 18s. 8d., and large as this sum is, it ceases to excite surprise when it is known that in the Central division alone the timber used during the year 1869 cost £143,001 18s. 9d. Cost of timber.

Tables No. 36 and 37 give full information relative to the water races constructed on the goldfields by the miners. The total length is 1,950 miles 3 chains, and the approximate cost £276,689. As a rule, races not actually in use are excluded. Races and reservoirs.

On the 31st December 1869 there were 174 water-right licenses in force. The areas occupied under licenses amount in the aggregate to 1,915 a. 0 r. 3 p., the total length of the races is 432 miles 2 chains, and the maximum quantity of water to be diverted per diem is 187,926,465 gallons. The aggregate area of the reservoirs held under license is 361 a. 3 r. 17 p., and the total capacity of the same 434,026,497 gallons. Water-right licenses.

Quite large works are projected by private companies under licenses, and great care is exercised by the department in scrutinising the plans and sections of embankments of large reservoirs, and before such licenses are granted the department requires that the mode of construction shall be such as to prevent the possibility of accident. But though the banks may be properly and solidly built, they always require attention, and soon some supervision of such works must be provided for, in order to guard against loss of life and property.

There were 423 companies registered in the several Courts of Mines during the year; the number of shares was 1,974,260, and the nominal capital £5,235,229. Companies registered.

The wages paid for different kinds of labor on the goldfields are given in Table No. 46. The lowest rate paid to miners during the year was £1 16s. per week, in the Castlemaine Division; and the highest, £3 per week, was paid in many localities. On the whole, the wages, both for skilled and unskilled labor, have been high. Wages paid for labor.

The Goldfields Reward Board has recommended that rewards be paid for the following discoveries:— New goldfields.

						£
Godfrey's Creek	...	...	...	...	...	200
Berlin	...	...	...	...	...	100
Fiddler's Creek	...	...	...	...	...	200
Whipstick	...	...	...	...	...	25
Spring Creek	...	...	...	...	...	300

The goldfields have extended considerably during the year ; prospectors have been active, and new areas have been opened up in the vicinity of nearly all the older goldfields as well as in places remote from them.

Berlin continues to afford to the miners who labor there large and small nuggets in great numbers.

Examination of
mining survey-
ors.

The Secretary to the Board appointed by the Governor in Council to test the qualifications of candidates for the office of Mining Surveyor reports for the year 1869 as follows :—“At the first examination five gentlemen presented themselves for examination, and one passed ; at the second, four appeared, and three passed ; at the third, four, of whom two passed ; and at the fourth, five, of whom two passed.”

There is now a prospect of the proposal, made some years ago, for the delivery of lectures on scientific subjects connected with mining and the formation of classes for imparting instruction to students, being at length adopted. It was stated in the Report for 1868 that it was intended to exhibit the large collection of foreign and colonial minerals to the public, and to place in the hall of the Intercolonial Exhibition catalogues, maps, plans and sections, and explanatory pamphlets ; and the exhibition was actually opened on the 11th November last ; but it was closed on the following day by those who professed to have the control of the building, and it has not yet been re-opened. The collection is undoubtedly the largest and most valuable in the Southern hemisphere, embracing, as it does, specimens of rocks and ores of economic value from nearly all parts of the world, as well as many rare minerals not to be found in even the best museums of Europe.

As soon as a suitable room can be placed at the disposal of the Mining Department for the exhibition of these minerals, rocks, and fossils, and for the delivery of lectures to students, the work of laying the foundation of a mining school will be commenced.

It is proposed to extend the examinations now held for Mining Surveyors to Mining Managers and Mining Engineers ; and students who enter their names for the course of lectures will receive instruction in the following subjects :—

- (a.) Principles of geology. The modes of occurrence of minerals of economic value. Geological surveying.
- (b.) Mine and land surveying, and the use of instruments.
- (c.) Mining. Modes of exploring and working veins and seams. Mechanical appliances used in mining. Treatment of vein-stuffs. Machinery used in dressing ores.
- (d.) Practical chemistry, metallurgy, assaying. Use of the blow-pipe.

It is intended at first to give only four lectures in the year in each subject ; and, as regards geology, these will be delivered sometimes in the lecture-room and sometimes in the field. Professor McCoy (with the approval of the Council of the University) will deliver an inaugural lecture on the principles of geology, and he has kindly promised to render assistance subsequently in imparting instruction in this branch of science. Already having taken the preliminary steps to found a mining school in connection with the University, his aid is as valuable as it is disinterested.

Mr. Geo. H. F. Ulrich, F.G.S., will undertake to give lectures in practical mining, and Mr. Cosmo Newbery, B.Sc., the analyst of the department, will conduct the branch which embraces practical chemistry, metallurgy, &c.

Mr. Thomas Couchman, the Chief Mining Surveyor, will give lectures in mine and land surveying, &c. ; and the modes of occurrence of minerals of economic value and geological surveying will be treated by the writer.

All the gentlemen above named are willing to give their services gratuitously.

The Honorable the Minister of Mines has warmly seconded the efforts of these gentlemen, and the proposal has from the first met with his approbation.

Important additions have been made to the *Mineral Statistics* for 1869.

Scientific papers.

Mr. Cosmo Newbery's report on the work done by him in the laboratory is of lasting value, and the paper generously contributed by Mr. Ulrich is one which cannot fail to attract attention in Europe and America, dealing as it does with subjects which there are held of the highest importance.

This gentleman—lately attached to the Geological Survey—has not ceased to pursue scientific investigations, notwithstanding that his whole time is now no longer available for the purpose; and it is gratifying to find that in this way his connection with the Department of Mines is still preserved.

It was intended to have given an account of the extremely interesting fossils which have been discovered lately in a *lead* near Haddon; but the examination of them is not yet finished. Dr. Von Mueller is of opinion that they represent a flora not very dissimilar to that which now prevails in Northern Australia. The department is greatly indebted to Mr. Greer, Mrs. Burke, late of Smythesdale; Mr. Charles Thorne, of Nintingbool, and Mr. John Lynch, Mining Surveyor, for specimens of the seed vessels and fossil wood which have been obtained from this locality. Mr. Lynch reports that when the manager and workmen connected with the claim in which they are found were informed that the Department of Mines was collecting such specimens, they at once expressed their earnest desire to aid in the work.

To the palæontologist these remains are of surpassing interest; and from them the geologist will be able to gather much information respecting the character of the country and the climate during the period in which the auriferous strata of the *leads* were deposited.

From several of the tables, such as those showing the number of leases granted, the amount of deposits received under the leasing regulations, the revenue derived from the goldfields, &c., it may be seen that the departmental business was unusually heavy in 1869. It cannot be estimated by any returns relating to the correspondence; but for the purpose of comparison the following figures may be useful:—

Business of the Mining Department.

	1868.	1869.
Number of letters received	13,046	19,168
Number of returns received	3,852	4,083
Number of accounts received	1,989	1,132
Number of accounts passed	1,310	1,066
Number of schedules passed (in triplicate)	410	618
Correspondence referred from other departments (inwards)	2,726	4,469
References outwards	2,771	3,644
Number of letters outwards	14,681	24,831
Applications lodged for gold-mining leases	634	1,467
Applications lodged for mineral leases	2	27
Applications lodged for water-right licenses	33	25
Total number of applications for leases and licenses dealt with (granted, refused, or forfeited)	768	1,534

I regret that, in consequence of this large increase of work, it became necessary for me to request the attendance of the officers in the Mining Department up to 6 p.m. instead of 4 p.m., during a portion of the year, and many of the officers refrained, under the circumstances, from applying for the leave of absence provided for by the *Civil Service Act*.

Attendance of
officers.

Mr. Richard Francis, the Chief Clerk, reports as follows respecting the attendance of officers in Melbourne:—"To meet the increase of the business of the office, no less than 8,094 hours' overwork has been done at this office; 8,094 hours = 213 weeks of the regulation office hours, or more than the equivalent for four men's work for one year. It is only due to the employés generally that I should here state that the additional assistance which the exigencies of the service have demanded of them has, without exception, been rendered cheerfully and assiduously."

METALS AND MINERALS OTHER THAN GOLD.

Silver.—No silver ore was raised during the year, but some of the gold got at St. Arnaud and at Wood's Point was mixed with silver, and it is not known how much was parted in Victoria.

Tin.—There were 269 tons 1 cwt. of black sand (mostly oxyd of tin), and 14 cwt. of tin, exported during the year.

Copper.—The copper mines were not worked during the year; 10 cwt. copper ore were exported, according to the Customs returns.

Antimony.—There were 709 tons sulphide of antimony raised, and 417 tons 3 cwt. exported. There were also exported 38 tons 16 cwt. antimony.

Coal and Lignite.—Two hundred and thirty tons lignite were raised.

Flags and Slates.—There were 68 tons and 21,000 square yards of flagging and coring raised during the year. The slate quarries near Gisborne were re-opened, but up to the end of the year only samples of the slate had been raised.

Further information relative to metals and minerals other than gold is given in the tables.

The following is an estimate of the Metals and Minerals raised in the colony from the first discovery of the goldfields to the 31st December 1869:—

<i>Gold</i> .—Quantity exported from the date of the first discovery to the 31st December 1869, 38,176,530 ozs. 3 dwts.,* at £4 per oz.					£152,706,120
<i>Silver</i> .—Ore raised, 11,348 tons.					
Produce of silver from ore treated, 18,353 ozs. 8 dwts., at 5s. 6d. per oz.					5,047
<i>Tin</i> .—Ore exported, 2,601 tons 2 cwt.					£192,936
,, 92 tons 9 cwt., at £70 per ton					6,471
,, 177 tons 10 cwt., at £52 10s. per ton					9,318
,, 269 tons 1 cwt.					17,551
Tin exported, say 3 tons 12 cwt. 3 qrs. 12 lbs., at £140 per ton					510
,, 7 tons 16 cwt.					729
,, 14 cwt., at £140 per ton					98
					<hr/> 227,613

* From returns furnished by the Honorable the Commissioner of Trade and Customs, and inclusive of 1,267,241 ozs., which, according to the Registrar-General's Tables, were produced in Victoria in 1852-5, but passed through the Customs of New South Wales, Tasmania, and South Australia, and not recorded in Victorian Tables. The quantities used and manufactured in the colony cannot be estimated.

Copper.—Ores raised, about 855 tons.

Smelted, 31 tons 7 cwt., at £112 per ton	...	...	...	£3,511
Regulus, 70 tons 16 cwt.	...	...	...	1,969
Rough copper, 10½ tons	...	...	...	320

£5,800

<i>Antimony</i> .—Ore raised, 2,955 tons 15 cwt. 26 lbs.	...	...	...	£32,102
„ 435 tons, at £6 per ton	...	...	...	2,610
„ 272 tons, at £9 per ton	...	...	...	2,448
„ 510 tons, at £7 per ton	...	...	...	3,570
„ 199 tons, at £4 per ton	...	...	...	796

41,526

<i>Coal</i> .—1,933 tons, at £1 10s. per ton	...	...	...	...	2,899
<i>Lignite</i> .—465 tons, at 17s. 6d. per ton	...	...	...	...	406
<i>Kaolin</i> .—1,757 tons, at £4 per ton	...	...	...	...	7,028
<i>Flagging</i> .—78,500 square yards	...	...	...	£22,325	
1,268 tons	...	...	...	2,219	

24,544

<i>Slates</i> .—1,000, at £8 per 1,000	£8
160 tons, at £4 per ton	640

648

<i>Magnesite</i> .—6¼ tons, at £2 per ton	12
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<i>Diamonds</i> .—About 84 carats, at an average of, say, £1 per carat	84
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<i>Sapphires</i> .—Numbers cannot be estimated, say	150
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£153,021,877

The prices of the several ores, &c., have been obtained from persons best acquainted with the market value of them.

R. BROUGH SMYTH,
Secretary for Mines.

Office of Mines,
Melbourne, 4th March 1870.

TABLES.

No. 1.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1869.

Quarter.	BALLARAT.			BEECHWORTH.			SANDHURST.			MARYBOROUGH.		
	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.
First Quarter, ending March 31st...	12,785	3,258	16,043	7,594	2,062	9,656	10,979	4,033	15,012	9,267	2,025	11,292
Second Quarter, ending June 30th	13,050	3,518	16,568	7,743	2,103	9,846	10,095	4,566	14,661	10,341	2,284	12,625
Third Quarter, ending Sept. 30th ...	13,060	3,661	16,721	8,084	2,132	10,216	7,163	4,868	12,031	11,259	2,427	13,686
Fourth Quarter, ending Dec. 31st...	12,091	3,546	15,637	7,853	2,027	9,880	5,308	4,761	10,069	11,088	2,049	13,137

Quarter.	CASTLEMAINE.			ARARAT.			GIPPSLAND.			GRAND TOTALS.		
	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.
First Quarter, ending March 31st...	7,165	2,073	9,238	2,482	1,323	3,805	2,265	680	2,945	52,537	15,454	67,991
Second Quarter, ending June 30th	6,921	2,251	9,172	2,522	1,392	3,914	2,378	726	3,104	53,050	16,840	69,890
Third Quarter, ending Sept. 30th ...	6,766	2,242	9,008	2,506	1,294	3,800	2,465	757	3,222	51,303	17,381	68,684
Fourth Quarter, ending Dec. 31st ...	6,277	2,256	8,533	2,429	1,093	3,522	2,159	850	3,009	47,205	16,582	63,787

NOTE.—The mean number of Miners employed during the year was 67,588; and the total quantity of Gold exported 1,340,838 ozs. 8 dwts., which, at £4 per oz., gives £79 7s. 0·87d. per man per annum. The rate per man per annum for 1868 was £104 18s. 8·75d.; for 1867, £87 1s. 6·91d.; for 1866, £80 8s. 3·87d.; for 1865, £74 4s. 2·09d.; for 1864, £74 1s. 9·29d.; for 1863, £70 9s. 0·42d.; for 1862, £67 14s. 5·11d.; for 1861, £74 15s. 11d.; and for 1860, £79 9s. 3·07d.

NOTE.—By Order in Council, published in the *Government Gazette* of the 20th August 1869, page 1247, a portion of the Mining District of Castlemaine was attached to Gippsland, and by another Order, published in the *Government Gazette* of the 17th December 1869, page 1997, the original boundaries were restored. These alterations do not affect the figures in the above and following tables.

No. 2.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS during the Quarter ending 31st December 1869.

Mining Districts.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District	9,199	2,892	3,530	16	12,729	2,908	15,637
Beechworth District	4,231	3,622	2,007	20	6,238	3,642	9,880
Sandhurst District	4,355	953	4,755	6	9,110	959	10,069
Maryborough District	7,594	3,494	2,043	6	9,637	3,500	13,137
Castlemaine District	3,707	2,570	2,235	21	5,942	2,591	8,533
Ararat District	1,240	1,189	1,093	...	2,333	1,189	3,522
Gippsland District	1,173	986	850	...	2,023	986	3,009
Totals	31,499	15,706	16,513	69	48,012	15,775	63,787

No. 3.

NUMBER of MINERS employed in the Mining District of BALLARAT during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Central Division	4,674	495	605	...	5,279	495	5,774
Southern Division	977	655	210	6	1,187	661	1,848
Buninyong Division	1,040	200	350	...	1,390	200	1,590
Smythesdale Division	950	500	30	...	980	500	1,480
Creswick Division	950	400	850	...	1,800	400	2,200
Gordon Subdivision	33	12	320	...	353	12	365
Steiglitz Subdivision	225	210	585	...	810	210	1,020
Blackwood Division and Blue Mountain South Subdivision	350	420	580	10	930	430	1,360
Totals	9,199	2,892	3,530	16	12,729	2,908	15,637

No. 4.

NUMBER of MINERS employed in the Mining District of BEECHWORTH during the Quarter ending
31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Division	1,201	1,021	207	...	1,408	1,021	2,429
Yackandandah Division	629	600	370	...	999	600	1,599
Indigo Division	334	201	62	...	396	201	597
Buckland Division	194	1,264	479	...	673	1,264	1,937
Alexandra Subdivision	942	20	90	...	1,032	20	1,052
Mansfield Subdivision	90	105	48	...	138	105	243
Benalla Subdivision ... ..	...	...	...	...	...	...	...
Gaffney's Creek Subdivision	72	66	171	16	243	82	325
Wood's Point Subdivision	274	6	316	...	590	6	596
Big River Subdivision	175	64	52	...	227	64	291
Mitta-mitta Division	230	240	12	4	242	244	486
Jamieson Subdivision	90	35	200	...	290	35	325
Totals	4,231	3,622	2,007	20	6,238	3,642	9,880

No. 5.

NUMBER of MINERS employed in the Mining District of SANDHURST during the Quarter ending
31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Sandhurst Division	2,290	623	3,348	...	5,638	623	6,261
Kilmore Division	68	50	168	...	236	50	286
Heathcote Division and Waranga South Subdivision	1,240	184	456	6	1,696	190	1,886
Waranga North Subdivision	557	96	283	...	840	96	936
Raywood Division	200	...	500	...	700	...	700
Totals	4,355	953	4,755	6	9,110	959	10,069

No. 6.

NUMBER of MINERS employed in the Mining District of MARYBOROUGH during the Quarter ending
31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	1,670	400	580	...	2,250	400	2,650
Amherst Division	1,570	250	120	...	1,690	250	1,940
Avoca Subdivision	498	2,000	174	...	672	2,000	2,672
Dunolly and Tarnagulla Divisions	650	640	624	6	1,274	646	1,920
Korong Division	3,030	140	150	...	3,180	140	3,320
Redbank and St. Arnaud South Sub- divisions	150	...	200	...	350	...	350
St. Arnaud North Subdivision	26	64	195	...	221	64	285
Totals	7,594	3,494	2,043	6	9,637	3,500	13,137

No. 7.

NUMBER of MINERS employed in the Mining District of CASTLEMAINE during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division	590	450	514	12	1,104	462	1,566
Fryer's Creek Division	1,160	980	297	...	1,457	980	2,437
Hepburn Division	942	448	504	...	1,446	448	1,894
Taradale and Kyneton Subdivision	474	224	121	9	595	233	828
Tarrangower Division	245	265	529	...	774	265	1,039
St. Andrew's Division	247	195	160	...	407	195	602
Blue Mountain North Subdivision	49	8	110	...	159	8	167
Totals	3,707	2,570	2,235	21	5,942	2,591	8,533

No. 8.

NUMBER of MINERS employed in the Mining District of ARARAT during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division	330	519	223	...	553	519	1,072
Pleasant Creek Division	70	150	830	...	900	150	1,050
Barkly Division	595	120	40	...	635	120	755
Raglan Division	245	400	...	...	245	400	645
Totals	1,240	1,189	1,093	...	2,333	1,189	3,522

No. 9.

NUMBER of MINERS employed in the Mining District of GIPPSLAND during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Omeo Subdivision	125	425	25	...	150	425	575
Mitchell River Division	310	190	63	...	373	190	563
Crooked River Division	257	208	142	...	399	208	607
Jericho Division	273	64	52	...	325	64	389
Donnelly's Creek Division	101	6	30	...	131	6	137
Stringer's Creek Subdivision	35	...	264	...	299	...	299
Russell's Creek Subdivision	40	...	202	...	242	...	242
South Tarraville Subdivision ... ..	...	...	...	...	...	...	...
Bendoc Subdivision	32	93	72	...	104	93	197
Totals	1,173	986	850	...	2,023	986	3,009

No. 10.

SUMMARY.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the several MINING DISTRICTS during the Quarter ending 31st December 1869.

Mining Districts.		ALLUVIAL MINING.													
		Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.
		Total Number.	Aggregate Horse-power.												
Ballarat District...	...	216	6,350	268	46	249	81	16	1,815	...	45	2	7	22	9
Beechworth District	...	47	752	17	...	78	26	48	14,594	14	275	172	1	...	6
Sandhurst District	...	35	518	...	...	359	22	111	111	...	13	...	6	326	1
Maryborough District	...	63	1,235	45	...	497	91	51	199	...	386	4	90	42	2
Castlemaine District	...	32	577	6	2	472	56	64	614	...	191	11	138	152	1
Ararat District ...	...	15	218	5	...	75	16	10	136	...	33	...	26	110	1
Gippsland District	...	...	...	...	...	3	...	...	1,314	...	97	72	...	...	...
Totals ...	...	408	9,650	341	48	1,733	292	300	18,783	14	1,040	261	268	652	20

Mining Districts.		QUARTZ MINING.									Approximate Value of all Mining Plant in the District.
		Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.	Boring Machines used in blasting.	
		Total Number.	Aggregate Horse-power.								
Ballarat District...	...	142	3,389	11	1,253	10	...	44	9	1	£ 585,753
Beechworth District	...	71	949	38	1,094	3	1	16	11	...	304,701
Sandhurst District	...	150	2,701	2	1,409	4	1	195	263	1	426,338
Maryborough District	...	108	1,951	...	742	...	...	101	61	1	284,882
Castlemaine District	...	136	2,351	3	1,019	5	5	139	174	1	262,860
Ararat District ...	...	33	812	...	367	1	...	38	4	1	115,296
Gippsland District	...	37	643	12	468	...	...	1	1	1	128,839
Totals ...	...	677	12,796	66	6,352	23	7	534	523	6	2,108,669

NOTE.

In the Ballarat District the machinery used in alluvial mining shows a decrease, as compared with the returns for 1868, of 40 steam-engines and 306 horse-power, 37 horse puddling machines, 13 whims, 325 sluices, toms, and sluice-boxes, 3 quicksilver and compound cradles, 27 stamp-heads, and 2 boring machines; but quartz mining machinery shows an increase of 29 steam-engines and 830 horse-power, 182 stamp-heads, 9 whims, and 3 whips. The value of all mining plant in the district shows a decrease of £120,640.

In the Beechworth District the machinery used in alluvial mining shows an increase, as compared with the returns for 1868, of 3 steam-engines and 152 horse-power, 7 horse puddling machines, 2 whims, 3 whips, 776 sluices, toms, and sluice-boxes, 4 hydraulic hoses, 115 pumps, and 2 boring machines; but a decrease of 76 in the number of water-wheels. In quartz mining machinery there is an increase of 12 steam-engines, 147 horse-power, and 88 stamp-heads. The value of all mining plant in the district has increased by £21,256.

In the Sandhurst Mining District the machinery used in alluvial mining shows an increase of 2 steam-engines, 24 horse-power, 6 whims, 13 pumps, 6 quicksilver and compound cradles, 28 stamp-heads, and 1 boring machine; but a decrease of 74 horse puddling machines, 13 whips or pulleys, and 30 sluices, toms, and sluice-boxes. In quartz mining machinery there is an increase of 8 steam-engines and 31 stamp-heads, 11 whims, and 22 whips; but a decrease of 26 in the aggregate horse-power of the steam-engines. The value of all mining plant in the district has increased by £7,600.

In the Maryborough Mining District the machinery used in alluvial mining shows an increase of 19 steam-engines and 400 horse-power, 27 whips or pulleys, 15 sluices, toms, and sluice-boxes, 44 pumps, 2 water-wheels, 20 stamp-heads, and 2 boring machines; but a decrease of 13 whims, 2 hydraulic hoses, and 12 quicksilver and compound cradles. The machinery used in quartz mining shows an increase of 13 steam-engines, 281 horse-power, and 60 stamp-heads; but a decrease of 10 in the number of whips. The value of all mining plant in the district has increased by £57,534.

In the Castlemaine Mining District the machinery used in alluvial mining shows a decrease of 11 steam-engines and 269 horse-power, 49 horse puddling machines, 11 whips or pulleys, 23 sluices, toms, and sluice-boxes, 3 water-wheels, and 14 stamp-heads; but an increase of 8 whims, 45 pumps, and 16 quicksilver and compound cradles. The machinery used in quartz mining shows an increase of 8 steam-engines and 369 horse-power, 77 whips, and under the head of winding, washing, pumping, or other machines moved by water-power, 4; but a decrease of 31 stamp-heads. The value of all mining plant in the district shows a decrease of £14,388.

In the Ararat Mining District the machinery used in alluvial mining shows a decrease of 6 steam-engines and 195 horse-power, 26 whips or pulleys, 46 sluices, toms, and sluice-boxes, and 1 boring machine; but an increase of 4 whims and 33 pumps. The machinery used in quartz mining shows an increase of 5 steam-engines and 100 horse-power; but a decrease of 9 stamp-heads and 6 whips or pulleys. The value of all mining plant in the district has decreased by £2,155.

In the Gippsland Mining District the machinery used in alluvial mining shows a decrease of 930 sluices, toms, and sluice-boxes, 84 pumps, and 3 water-wheels; but there is an increase in the quartz mining machinery of 3 crushing machines driven by other power than steam, and 34 stamp-heads. The number of steam-engines remains the same, but the horse-power has increased by 50. The value of all mining plant in the district shows an increase of £9,030.

Comparing the totals of machinery employed on the goldfields in 1869 with the returns for 1868, the machinery used in alluvial mining shows a decrease of 33 steam-engines and 194 horse-power, 154 horse puddling machines, 6 whims, 20 whips, 563 sluices, toms, and sluice-boxes, and 78 water-wheels; but an increase of 2 hydraulic hoses, 168 pumps, 7 quicksilver and compound cradles, 9 stamp-heads, and 2 boring machines. In quartz mining machinery there is a general increase, viz., 75 steam-engines, 1,751 horse-power, 355 stamp-heads, 3 winding, washing, pumping, or other machines, moved by water-power, 22 whims, and 87 whips or pulleys. There is a decrease in the total value of the mining plant on the goldfields, as compared with 1868, of £41,763.

No. 11.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF BALLARAT DURING THE QUARTER ENDING 31st DECEMBER 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLOUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.		
	Steam-engines employed in Winding, Pumping, &c.		Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluice-boxes, and Stamps, Toms, and Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Whims.		Whips or Pulleys.	Boring Machines used in Blasting.
	Total Number.	Aggregate Horse-power.										Total Number.	Aggregate Horse-power.							
Central Division	3	30	638	...	379	...	12	...	...	292,450
Southern Division	4	10	142	...	72	...	7	...	...	27,000
Buninyong Division	14	279	...	100	2	...	...	...	30,000
Smythesdale Division	2	45	...	8	...	...	...	...	23,600
Creswick Division	2	28	1,080	1	214	8	3	...	1	112,000
Gordon Subdivision	17	421	...	65	...	6	...	...	16,703
Steiglitz Subdivision	19	374	...	136	...	2	2	...	33,000
Blackwood Division and Blue Mountain South Sub-division	22	410	10	279	...	14	...	...	51,000
Totals	9	142	3,389	11	1,253	10	44	9	1	585,753

No. 12.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of BEECHWORTH during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.			
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.		Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.
	Total Number.	Aggregate Horse-power.											Total Number.	Aggregate Horse-power.							
Beechworth Division ...	25	270	...	10	15	5	5,000	3	59	28	...	2	6	93	2	59	...	...	5	...	52,580
Yackandandah Division ...	1	4	...	...	1	...	3,100	...	37	37	...	...	6	90	2	90	...	...	2	...	16,385
Indigo Division ...	16	406	15	49	10	38	250	5	10	...	...	3	6	64	...	58	...	...	1	6	41,427
Buckland Division ...	2	22	...	...	...	...	2,314	3	46	2	...	...	18	259	12	276	3	...	...	...	45,152
Alexandra Subdivision ...	3	50	2	17	...	3	50	...	...	2	...	1	6	72	...	58	...	...	3	3	17,005
Mansfield Subdivision ...	...	...	...	2	...	...	150	...	20	...	...	...	2	24	...	20	...	...	...	...	8,800
Benalla Subdivision ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gaffney's Creek Subdivision ...	...	...	...	...	...	...	450	...	50	50	...	...	7	68	10	146	...	1	...	...	25,837
Wood's Point Subdivision ...	...	...	...	...	...	2	390	...	30	30	1	...	12	165	9	283	...	...	5	2	71,460
Big River Subdivision ...	...	...	...	...	...	...	550	...	5	5	...	...	4	46	2	43	...	...	...	...	9,952
Mitta-mitta Division ...	...	...	...	...	...	...	2,000	3	18	18	...	...	...	...	...	...	...	...	...	...	2,603
Jamieson Subdivision ...	...	...	...	...	...	...	340	...	...	...	...	...	4	68	1	61	...	...	...	...	13,500
Totals	47	752	17	78	26	48	14,594	14	275	172	1	6	71	949	38	1,094	3	1	16	11	304,701

No. 13.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of SANDHURST during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.						QUARTZ MINING.								Approximate Value of all Mining Plant in the Division or Subdivision.					
	Steam-engines employed in Winding, Pumping, &c.			Whims.	Whips or Pulleys.	Sluices, Toms, and Stalce-boxes.	Pumps.	Compound and Quicksilver and Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other vein stuff).	Buddles.		Winding, Washing, Pumping, or other Water-power.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.	
	Total Number.	Aggregate Horse- power.	Horse- power.																	
Sandhurst Division	208	16	91	...	13	6	326	1	2,977	...	1,036	2	1	168	219	1	369,000
Kilmore Division	5	3	4	8	...	...	...	...	95	2	60	2	...	5	4	...	4,950
Heathcote Division and Waranga South Subdivision	90	3	16	103	...	...	...	...	266	...	146	...	...	11	22	...	23,768
Waranga North Subdivision	40	...	...	...	...	...	...	...	10	...	97	...	...	10	16	...	17,320
Raywood Division	16	...	...	...	...	...	...	...	100	...	70	...	...	1	2	...	11,300
Totals	359	22	111	111	13	6	326	1	2,701	2	1,409	4	1	195	263	1	426,338

No. 14.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of MARYBOROUGH during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.			
	Steam-engines employed in Winding, Pumping, &c.			Steam Pudding Machines.	Horse Pudding Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Stakes-boxes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Stamp-heads (crushing Quartz or other vein-stuff).	Whims.		Whips or Pulleys.	Boring Machines used in Blasting.	
	Total Number.	Aggregate Horse-power.												Total Number.	Aggregate Horse-power.						
Maryborough Division	17	138	17	4	...	...	2	35	24	2	2	18	417	156	15	11	...	92,435
Amherst Division	20	150	21	230	2	21	...	...	...	...	...	10	200	42	12	8	...	53,456
Avoca Subdivision	9	194	7	15	7	...	...	...	12	...	...	2	24	20	...	...	...	14,000
Dunolly and Tarnagulla Divisions	4	85	...	30	100	...	...	15	...	...	...	38	591	243	36	9	...	60,000
Korong Division	50	...	...	20	30	...	6	...	...	...	22	418	139	15	13	...	39,000
Redbank and St. Arnaud South Subdivisions	2	3	...	4	2	...	...	...	...	...	...	4	50	30	3	1	1	10,000
St. Arnaud North Subdivision	1	17	...	...	4	17	...	13	6	...	...	14	251	112	20	19	...	24,991
Totals	63	497	45	386	4	90	42	2	2	2	2	108	1,951	742	101	61	1	284,882

No. 15.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of CASTLEMAINE during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.			
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Buddies.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Shutes, Toms, and Juice-boxes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddies.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.		Whips or Pulleys.	Boring Machines used in Blasting.	
	Total Number.	Aggregate Horse-power.												Total Number.	Aggregate Horse-power.									
Castlemaine Division ...	4	50	3	...	164	6	...	104	25	...	100	16	...	...	31	522	...	240	...	...	30	40	...	56,680
Fryer's Creek Division ...	8	121	...	...	155	9	14	270	75	2	3	58	...	...	14	244	...	96	2	1	6	10	...	52,852
Hepburn Division ...	11	176	3	2	67	12	45	160	27	1	...	44	1	34	541	2	239	2	2	32	45	...	...	36,043
Tarradale and Kyneton Subdivision	7	210	...	...	32	26	...	34	2	1	...	18	...	5	62	...	52	...	...	...	3	...	...	17,784
Tarrangower Division ...	2	20	...	...	49	...	5	16	62	2	35	16	...	...	42	880	...	324	1	...	67	79	1	92,386
St. Andrew's Division ...	...	...	...	...	5	6	...	30	...	5	...	...	...	...	7	68	1	52	...	2	...	...	...	6,265
Blue Mountain North Subdivision	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	34	...	16	...	...	1	...	...	550
Totals ...	32	577	6	2	472	56	64	614	191	11	138	152	1	136	2,351	3	1,019	5	5	139	174	...	1	262,860

No. 16.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of ARARAT during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division.
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Juice-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Stamp-heads (crushing Quartz or other vein-stuff).	Buddies.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.			
	Total Number.	Aggregate Horse-power.										Total Number.	Aggregate Horse-power.								
																				£	
Ararat Division	...	2	26	3	8	7	...	6	33	6	4	1	11	185	71	1	1	...	...	27,996
Pleasant Creek Division	...	6	88	...	2	...	40	...	...	20	74	...	21	609	284	...	37	4	1	78,740
Barley Division	...	3	36	2	28	1	...	90	...	...	24	...	...	...	...	...	...	...	...	3,120
Raglan Division	...	4	68	2	37	8	...	...	...	...	8	...	1	18	12	...	...	...	...	5,440
Totals	...	15	218	5	75	16	10	136	33	26	110	1	33	812	367	1	38	4	1	115,296	

No. 17.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of GIPPSLAND during the Quarter ending 31st December 1869.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.					QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.
	Horse Puddling Machines.	Sinks, Toms, and Sluice-boxes.	Pumps.	Water-wheels.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.		
					Total Number.	Aggregate Horse-power.							
Omeo Subdivision	1	17	...	15	...	...	...	£ 4,800	
Mitchell River Division ...	3	100	30	...	2	27	1	33	...	...	...	3,115
Crooked River Division	780	37	52	11	149	5	130	...	...	1	32,935	
Jericho Division	274	20	20	5	65	3	80	...	...	...	18,847	
Donnelly's Creek Division	5	76	...	61	...	...	...	19,550	
Stringer's Creek Subdivision...	10	271	...	112	...	...	...	35,182	
Russell's Creek Subdivision	50	...	...	1	10	2	12	1	...	...	8,500	
South Tarraville Subdivision...	
Bendoc Subdivision	110	10	...	2	28	1	25	...	1	...	5,910	
Totals	3	1,314	97	72	37	643	12	468	1	1	1	128,839	

No. 18.

SUMMARY.

NUMBER of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon in the several Mining Districts.

Mining Districts.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District ...	178	78
Beechworth District ...	694	229
Sandhurst District ...	646	158
Maryborough District ...	465	70½
Castlemaine District...	387	169
Ararat District ...	71	78¾
Gippsland District ...	440	122½
Totals ...	2,881	905¾

NOTE.—The number of "distinct" quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored, it is found, too, that what were supposed to be separate reefs are not really distinct. The extent of auriferous ground is here put down from estimates made by the Mining Surveyors and Registrars, not from actual surveys; and in a few instances the estimates of the present Surveyors and Registrars differ from those made by their predecessors. The figures vary from year to year; as the shallow alluviums of the older goldfields are abandoned by the miners, they are taken up and occupied, under the provisions of the *Amending Land Act*, by agriculturists and gardeners, and ground which one year was included in the estimated area of gold-workings is excluded in another.

No. 19.

TABLE showing the Number of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon, in the several DIVISIONS and SUBDIVISIONS of each Mining District.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT ...	Central Division	24	7	
	Southern Division	14	6	
	Buninyong Division	13	14	
	Smythesdale Division	11	13	
	Creswick Division	15	12	
	Gordon Subdivision	18	3½	
	Steiglitz Subdivision	62	18½	
	Blackwood Division and Blue Mountain South Subdivision	21	4	
	Totals	178	78	
BEECHWORTH ...	Beechworth Division	90	47	
	Yackandandah Division	63	11½	
	Indigo Division	24	2½	
	Buckland Division	316	60	
	Alexandra Subdivision	29	16	
	Mansfield Subdivision	16	8	
	Benalla Subdivision	12	2	
	Gaffney's Creek Subdivision	18	24	
	Wood's Point Subdivision	93	18	
	Big River Subdivision	12	30	
	Mitta-mitta Division	5	3	
	Jamieson Subdivision	16	7	
	Totals	694	229	
SANDHURST ...	Sandhurst Division	256	15½	
	Kilmore Division	100	27	
	Heathcote Division and Waranga South Subdivision	160	80	
	Waranga North Subdivision	98	10½	
	Raywood Division	32	25	
	Totals	646	158	
MARYBOROUGH ...	Maryborough Division	119	5	
	Amherst Division	45	6	
	Avoca Subdivision	12	15	
	Duoolly and Tarnagulla Divisions	175	16	
	Korong Division	37	13	
	Redbank and St. Arnaud South Subdivisions	25	9	
	St. Arnaud North Subdivision	52	6½	
	Totals	465	70½	
CASTLEMAINE...	Castlemaine Division	98	9	
	Fryer's Creek Division	30	28¾	
	Hepburn Division	86	82	
	Taradale and Kyneton Subdivision	31	22	
	Tarrangower Division	74	9½	
	St. Andrew's Division	62	13¾	
	Blue Mountain North Subdivision	6	4	
	Totals	387	169	
ARARAT ...	Ararat Division	23	34	
	Pleasant Creek Division... ..	34	24	
	Barkly Division	9	15	
	Raglan Division	5	5¾	
	Totals	71	78¾	
GIPPSLAND ...	Omeo Subdivision	19	8	
	Mitchell River Division	14	5	
	Crooked River Division	337	49½	
	Jericho Division	28	25	
	Donnelly's Creek Division	13	6	
	Struiger's Creek Subdivision	9	7	
	Russell's Creek Subdivision	12	7	
	South Tarraville Subdivision ... ..	...	...
	Bendoe Subdivision	8	15	
	Totals	440	122½	

No. 20.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1869 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.					Tons Crushed.	Total Produce.			Average Yield per Ton.		
						ozs.	dwt.	grs.	ozs.	dwt.	grs.
Ballarat District	...	...	...	...	255,173	104,148	19	9	0	8	3'91
Beechworth District	...	...	...	...	126,351 $\frac{3}{8}$	74,575	2	3	0	11	19'30
Sandhurst District	...	...	...	...	213,516 $\frac{1}{2}$	108,677	17	2	0	10	4'31
Maryborough District	...	...	...	...	75,761	36,765	18	10	0	9	16'93
Castlemaine District	...	...	...	...	98,213 $\frac{3}{8}$	44,766	17	22	0	9	2'78
Ararat District	...	...	...	...	90,161	54,947	16	16	0	12	4'53
Gippsland District	...	...	...	...	24,245 $\frac{1}{2}$	35,752	5	1	1	9	11'79
Totals	...	...	...	...	883,422 $\frac{1}{2}$	459,634	16	15	0	10	9'73

NOTE.—The above table does not show the total quantity of quartz crushed in the several localities, but only the yield of certain "crushings" respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district, as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the Statistics, information has been obtained concerning 6,695,092 $\frac{1}{2}$ tons which have been crushed, which yielded an average of 11 dwts. 8'85 grs. per ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1869 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.				Tons Crushed.	Total Produce.			Average Yield per Ton.			Remarks.
						ozs.	dwt.	grs.	ozs.	dwt.	grs.	
BALLARAT	{	Central Division	...	65,130	12,389	18	17	0	3	19'31	None reported.
			Southern Division	...	6,507	2,263	9	12	0	6	22'97	
			Buninyong Division	...	19,465	3,905	3	4	0	4	0'29	
			Smythesdale Division	...	...	...	...	...	...	...	...
			Creswick Division	...	125,746	56,752	1	21	0	9	0'63	
			Gordon Subdivision	...	19,910	15,309	4	0	0	15	9'08	
			Steiglitz Subdivision	...	7,743	8,116	12	0	1	0	23'16	
			Blackwood Division and Blue Mountain South Subdivision	...	10,672	5,412	10	3	0	10	3'44	
			Totals	...	255,173	104,148	19	9	0	8	3'91	
BEECHWORTH	...	{	Beechworth Division	...	3,001	2,566	4	10	0	17	2'45	None reported.
			Yackandandah Division	...	13,081	5,887	17	0	0	9	0'05	
			Indigo Division	...	7,782 $\frac{1}{2}$	2,965	9	23	0	7	14'90	
			Buckland Division	...	35,590 $\frac{1}{10}$	24,376	8	3	0	13	16'75	
			Alexandra Subdivision	...	...	...	...	...	...	...	...
			Mansfield Subdivision	...	5,320	4,766	8	12	0	17	22'05	
			Benalla Subdivision	...	...	...	...	...	...	...	...
			Gaffney's Creek Subdivision	...	22,745	6,844	0	22	0	6	0'43	
			Wood's Point Subdivision	...	32,469 $\frac{1}{2}$	23,672	14	5	0	14	13'95	
			Big River Subdivision	...	4,257	1,168	0	0	0	5	11'69	
			Mitta-mitta Division	None reported.
			Jamieson Subdivision	...	2,105	2,327	19	0	1	2	2'83	
			Totals	...	126,351 $\frac{3}{8}$	74,575	2	3	0	11	19'30	
SANDHURST	...	{	Sandhurst Division	...	173,238	86,265	3	6	0	9	23'01	
			Kilmore Division	...	24,13 $\frac{1}{2}$	3,956	16	0	1	12	18'93	
			Heathcote Division and Waranga South Subdivision	...	9,173	4,455	13	17	0	9	17'15	
			Waranga North Subdivision	...	10,029	5,631	3	16	0	11	5'51	
			Raywood Division	...	18,663	8,369	0	11	0	8	23'24	
			Totals	...	213,516 $\frac{1}{2}$	108,677	17	2	0	10	4'31	

No. 21.—TABLE showing the Average Yield of Gold from Quartz in the several Divisions, &c.—*continued*.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
MARYBOROUGH ...	Maryborough Division ...	23,903	ozs. dwts. grs. 11,636 9 4	ozs. dwts. grs. 0 9 17'67	
	Amherst Division ...	4,694	1,960 18 0	0 8 8'51	
	Avoca Subdivision ...	1,419	1,085 6 0	0 15 7'12	
	Dunolly and Tarnagulla Divisions	28,024	12,735 13 16	0 9 2'13	
	Korong Division ...	6,794	2,505 9 6	0 7 9'01	
	Redbank and St. Arnaud South Subdivisions ...	3,065	1,683 10 14	0 10 23'65	
	St. Arnaud North Subdivision ...	7,862	5,158 11 18	0 13 2'94	
	Totals ...	75,761	36,765 18 10	0 9 16'93	
CASTLEMAINE ...	Castlemaine Division ...	26,528	11,040 18 16	0 8 7'77	
	Fryer's Creek Division ...	9,386	4,283 18 12	0 9 3'07	
	Hepburn Division ...	25,675½	8,175 19 0	0 6 8'84	
	Taradale and Kyncton Subdivision	3,765	2,726 1 4	0 14 11'54	
	Tarrangower Division ...	30,434	14,836 11 0	0 9 17'99	
	St. Andrew's Division ...	2,109	3,351 16 18	1 11 18'86	
	Blue Mountain North Subdivision	316	351 12 20	1 2 6'13	
	Totals ...	98,213½	44,766 17 22	0 9 2'78	
ARARAT ...	Ararat Division ...	16,195½	5,597 19 14	0 6 21'91	None reported.
	Pleasant Creek Division ...	73,177	49,224 7 21	0 13 10'88	
	Barkly Division ...	...	...	...
	Raglan Division ...	788½	125 9 5	0 3 4'37	
	Totals ...	90,161	54,947 16 16	0 12 4'53	
GIPPSLAND ...	Omco Subdivision ...	1,058½	1,005 6 1	0 18 23'93	None reported.
	Mitchell River Division ...	177	248 16 0	1 8 2'71	
	Crooked River Division ...	1,479	883 7 17	0 11 22'69	
	Jericho Division ...	4,777½	1,788 19 12	0 7 11'74	
	Donnelly's Creek Division ...	755	260 18 19	0 6 21'89	
	Stringer's Creek Subdivision ...	14,113	29,756 1 15	2 2 4'03	
	Russell's Creek Subdivision ...	228	395 16 0	1 14 17'26	
	South Tarraville Subdivision ...	...	...	...
	Bendoc Subdivision ...	1,658	1,412 19 9	0 17 1'06	
	Totals ...	24,245½	35,752 5 1	1 9 11'79	

No. 22.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1869 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District ...	2,770	656 0 0	0 4 17'67	
Beechworth District ...	1,783	278 6 2	0 3 2'92	
Sandhurst District ...	94,965	16,240 18 18	0 3 10'08	
Maryborough District ...	8,372	1,537 6 1	0 3 16'13	
Castlemaine District ...	48,630	7,167 0 18	0 2 22'74	
Ararat District ...	19,621	6,284 11 2	0 6 9'74	
Gippsland District ...	200	44 6 0	0 4 10'32	
Totals ...	176,341	32,208 8 17	0 3 15'67	

NOTE.—From 1864 to 1869 inclusive, 1,169,854 tons and 12 cwt. of quartz tailings, &c., were crushed, and yielded 236,349 ozs. 9 dwts. 17 grs. of gold, being an average of 4 dwts. 0 97 grs. per ton.

No. 23.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1869 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
			ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT ...	Central Division ...	970	412 0 0	0 8 11'87	None reported.
	Southern Division ...	...	...	...	None reported.
	Buninyong Division ...	...	...	...
	Smythesdale Division ...	1,800	244 0 0	0 2 17'06	
	Creswick Division ...	...	...	...	None reported.
	Gordon Subdivision ...	...	...	...	None reported.
	Steiglitz Subdivision ...	...	...	...	None reported.
	Blackwood Division and Blue Mountain South Subdivision ...	...	...	...	None reported.
	Totals ...	2,770	656 0 0	0 4 17'67	
BEECHWORTH	Beechworth Division ...	100	12 11 18	0 2 12'42	None reported.
	Yackandandah Division ...	...	...	...	None reported.
	Indigo Division ...	...	...	...	None reported.
	Buckland Division ...	...	...	...
	Alexandra Subdivision ...	1,683	265 14 8	0 3 3'78	
	Mansfield Subdivision ...				
	Benalla Subdivision ...				
	Gaffney's Creek Subdivision ...	...	...	...	None reported.
	Wood's Point Subdivision ...	...	...	...	None reported.
	Big River Subdivision ...	...	...	...	None reported.
	Mitta-mitta Division ...	...	...	...	None reported.
	Jamieson Subdivision ...	...	...	...	None reported.
	Totals ...	1,783	278 6 2	0 3 2'92	
SANDHURST	Sandhurst Division ...	85,736	14,402 14 12	0 3 8'63	None reported.
	Kilmore Division ...	...	...	...
	Heathcote Division and Waranga South Subdivision ...	7,655	1,600 0 18	0 4 4'32	
	Waranga North Subdivision ...	1,574	238 3 12	0 3 0'63	None reported.
	Raywood Division ...	...	...	...
	Totals ...	94,965	16,240 18 18	0 3 10'08	
MARYBOROUGH	Maryborough Division ...	839	114 6 0	0 2 17'39	None reported.
	Amherst Division ...	922	247 6 8	0 5 8'75	
	Avoca Subdivision ...	2,910	546 0 0	0 3 18'06	
	Dunolly and Tarnagulla Divisions ...	...	...	...
	Korong Division ...	2,601	469 13 17	0 3 14'67	
	Redbank and St. Arnaud South Subdivisions ...	1,100	160 0 0	0 2 21'81	None reported.
	St. Arnaud North Subdivision ...	...	...	...
	Totals ...	8,372	1,537 6 1	0 3 16'13	
CASTLEMAINE	Castlemaine Division ...	780	136 10 0	0 3 12'00	None reported.
	Fryer's Creek Division ...	14,149	3,415 13 0	0 4 19'87	
	Hepburn Division ...	9,803	1,042 8 22	0 2 3'04	
	Taradale and Kyneton Subdivisions ...	12,530	1,916 10 2	0 3 1'41	
	Tarrangower Division ...	11,326	642 14 13	0 1 3'23	
	St. Andrew's Division ...	42	13 4 5	0 6 6'97	
	Blue Mountain North Subdivision ...	...	...	...
	Totals ...	48,630	7,167 0 18	0 2 22'74	
ARARAT ...	Ararat Division ...	...	...	...	None reported.
	Pleasant Creek Division ...	12,666	3,142 0 6	0 4 23'07	None reported.
	Barkly Division ...	6,955	3,142 10 20	0 9 0'88	
	Raglan Division ...	...	...	...
	Totals ...	19,621	6,284 11 2	0 6 9'74	
GIPPSLAND	Omeo Subdivision ...	...	...	...	None reported.
	Mitchell River Division ...	...	...	...	None reported.
	Crooked River Division ...	80	20 6 0	0 5 1'80	None reported.
	Jericho Division ...	...	...	...
	Donnelly's Creek Division ...	...	...	...
	Stringer's Creek Subdivision ...	...	...	...
	Russell's Creek Subdivision ...	...	...	...
	South Tarraville Subdivision ...	...	...	...
	Bendoc Subdivision ...	120	24 0 0	0 4 0'00	None reported.
	Totals ...	200	44 6 0	0 4 10'32	

No. 24.**SUMMARY.**

AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1869 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Quantity operated on.			Total Produce.			Average Yield per Ton.			Remarks.
	tons	cwt.	qrs.	ozs.	dwt.	grs.	ozs.	dwt.	grs.	
Ballarat District ...	715	0	0	2,411	16	0	3	7	11'11	None reported.
Beechworth District ...	51	10	0	207	0	0	4	0	9'32	
Sandhurst District ...	465	0	0	1,245	5	12	2	13	13'44	
Maryborough District ...	31	0	0	101	14	17	3	5	15'25	
Castlemaine District ...	30	0	0	119	3	0	3	19	10'40	
Ararat District ...	...	...	...	...	...	...	...	...	...
Gippsland District ...	107	12	1	382	14	12	3	11	3'12	
Totals ...	1,400	2	1	4,467	13	17	3	3	19'65	

No. 25.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1869 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.			Quantity operated on.			Total Produce.			Average Yield per Ton.			Remarks.
				tons	cwt.	qrs.	ozs.	dwt.	grs.	ozs.	dwt.	grs.	
BALLARAT	...	Central Division ...	...	98	0	0	156	9	0	1	11	22'28	None reported.
		Southern Division ...	...	...	...	...	...	...	...	...	...	...
		Buninyong Division ...	...	...	...	...	...	...	...	...	...	...
		Smythesdale Division ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Creswick Division ...	...	576	0	0	2,139	7	0	3	14	6'79	None reported.
		Gordon Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Steiglitz Subdivision ...	...	37	0	0	100	0	0	2	14	1'29	
		Blackwood Division and Blue Mountain South Subdivision ...	...	4	0	0	16	0	0	4	0	0'00	
		Totals ...	...	715	0	0	2,411	16	0	3	7	11'11	
BEECHWORTH	...	Beechworth Division ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Yackandandah Division ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Indigo Division ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Buckland Division ...	...	51	10	0	207	0	0	4	0	9'32	None reported.
		Alexandra Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Mansfield Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Benalla Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Gaffney's Creek Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Wood's Point Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Big River Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Mitta-mitta Division ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Jamieson Subdivision ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Totals ...	...	51	10	0	207	0	0	4	0	9'32	
SANDHURST	...	Sandhurst Division ...	...	465	0	0	1,245	5	12	2	13	13'44	None reported.
		Kilmore Division ...	...	...	...	...	...	...	...	...	...	...
		Heathcote Division and Waranga South Subdivision ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Waranga North Subdivision ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Raywood Division ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Totals ...	...	465	0	0	1,245	5	12	2	13	13'44	
MARYBOROUGH	...	Maryborough Division ...	...	23	0	0	83	14	17	3	12	19'52	None reported.
		Amherst Division ...	...	...	...	...	...	...	...	...	...	...
		Avoca Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Dunolly and Tarnagulla Divisions ...	...	...	...	...	...	...	...	...	...	...
		Korong Division ...	...	...	...	...	...	...	...	...	...	...	None reported.
		Redbank and St. Arnaud South Subdivisions ...	...	8	0	0	18	0	0	2	5	0'00	None reported.
		St. Arnaud North Subdivision ...	...	...	...	...	...	...	...	...	...	...
		Totals ...	...	31	0	0	101	14	17	3	5	15'25	

No. 25.—TABLE showing the Average Yield of Gold from Pyrites and Blanketings, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
		tons cwt. qrs.	ozs. dwts. grs.	ozs. dwts. grs.	
CASTLEMAINE ...	Castlemaine Division ...	...	...	...	None reported.
	Fryer's Creek Division ...	2 0 0	8 2 0	4 1 0'00	
	Hepburn Division ...	28 0 0	111 1 0	3 19 7'71	
	Taradale and Kyneton Subdivision ...	...	...	...	None reported.
	Tarrangower Division ...	...	...	...	None reported.
	St. Andrew's Division ...	...	...	...	None reported.
	Blue Mountain North Subdivision ...	...	...	...	None reported.
	Totals ...	30 0 0	119 3 0	3 19 10'40	
ARARAT ...	Ararat Division ...	...	...	...	None reported.
	Pleasant Creek Division ...	...	...	...
	Barkly Division ...	...	...	...
	Raglan Division ...	...	...	...
		
GIPPSLAND ...	Omeo Subdivision ...	...	...	...	None reported.
	Mitchell River Division ...	...	...	...	None reported.
	Crooked River Division ...	...	...	...	None reported.
	Jericho Division ...	...	...	...	None reported.
	Donnelly's Creek Division ...	...	...	...	None reported.
	Stringer's Creek Subdivision ...	107 12 1	382 14 12	3 11 3'12	
	Russell's Creek Subdivision ...	...	...	...	None reported.
	South Tarraville Subdivision ...	...	...	...	None reported.
	Bendoc Subdivision ...	...	...	...	None reported.
	Totals ...	107 12 1	382 14 12	3 11 3'12	

No. 26.

SUMMARY.

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ending 31st December 1869.

Mining Districts.	From	To
	£ s. d.	£ s. d.
Ballarat District ...	0 4 0	0 15 0
Beechworth District ...	0 5 0	1 5 0
Sandhurst District ...	0 4 0	1 0 0
Maryborough District ...	0 5 0	0 12 0
Castlemaine District ...	0 2 6	0 12 6
Ararat District ...	0 8 0	0 12 0
Gippsland District ...	0 10 0	1 10 0
Lowest and Highest Prices ...	0 2 6	1 10 0

No. 27.

SUMMARY.

PRICE of GOLD per Ounce in the several MINING DISTRICTS during the Quarter ending 31st December 1869.

Mining Districts.	From	To
	£ s. d.	£ s. d.
Ballarat District ...	3 17 6	4 2 9
Beechworth District ...	2 11 0	4 1 3
Sandhurst District ...	3 15 0	4 0 6
Maryborough District ...	3 16 0	4 2 6
Castlemaine District ...	3 16 6	4 0 6
Ararat District ...	3 15 0	3 19 0
Gippsland District ...	3 0 0	4 1 0
Lowest and Highest Prices ...	2 11 0	4 2 9

No. 28.

QUANTITY of GOLD EXPORTED during the Year 1869, as returned by the Customs Department.

1,340,838 ozs. 8 dwts.

NOTE.—In addition to the above, 342,742 ozs. 4 dwts. New Zealand gold, and 17,392 ozs. 6 dwts. New South Wales gold, have been shipped from this colony during the year.

No. 29.

RETURN showing approximately the **GOLD** obtained from **QUARTZ VEINS** and **ALLUVIAL WORKINGS** during the Year 1869.

						ozs.	dwt.
From Quartz Veins	...	...	...	...	...	530,061	4
From Alluvial Workings	...	...	...	...	...	810,777	4
Total Gold Exported						1,340,838	8

NOTE.—The above results are but rough approximations. The Mining Surveyors and Registrars can furnish only estimates based on information afforded by the banks and gold-buyers, and on their own knowledge of the character of the workings in their districts. The check on the returns—and not a sufficient one—is that afforded by the returns of quartz and quartz tailings crushed, which, however, cannot and do not comprise information respecting all the vein-stuff put through the mills.

No. 30.

RETURN of the Number of **GOLD-MINING LEASES** in force on the 31st December 1869, and the **Extent** of **Ground Leased**.

Mining Districts.					Number of Leases.	Extent.		
						A.	R.	P.
Ballarat District	...	...	...	...	210	10,796	1	1
Beechworth District	...	...	...	...	239	7,356	2	6
Sandhurst District	...	...	...	...	460	3,462	1	30
Maryborough District	...	...	...	...	427	13,288	1	1
Castlemaine District	...	...	...	...	165	2,695	0	25
Ararat District	...	...	...	...	234	6,224	2	16
Gippsland District	...	...	...	...	69	1,020	0	14
Totals	...	...	...	...	1,804	44,843	1	13

NOTE.—The total number of Gold-Mining Leases granted since the commencement is 4,598, containing 102,618 a. 2 r. 29 p. The above table shows those only which were actually in force on the 31st December 1869.

No. 31.

RETURN of the Number of **GOLD-MINING LEASES** issued in the Year 1869, and the **Extent** of **Ground Leased**.

Mining Districts.					Number of Leases.	Extent.		
						A.	R.	P.
Ballarat District	...	...	...	...	177	9,807	1	9
Beechworth District	...	...	...	...	145	5,873	2	11
Sandhurst District	...	...	...	...	102	1,047	0	10
Maryborough District	...	...	...	...	274	15,362	1	31
Castlemaine District	...	...	...	...	91	2,443	1	30
Ararat District	...	...	...	...	219	6,659	3	14
Gippsland District	...	...	...	...	20	353	0	25
Totals	...	...	...	...	1,028	41,546	3	10

No. 32.**SUMMARY.**

AREA of **LAND** held as **CLAIMS** under the District Bye-laws, and the proportion of the same protected by **Registration** or by **Exemption Certificates**, in the several **MINING DISTRICTS**, on the 31st December 1869.

Mining Districts.					Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked being protected by Certificates.		
					A.	R.	P.	A.	R.	P.
Ballarat District	...	...	...	...	32,626	0	1	8,985	1	18
Beechworth District	...	...	...	...	30,343	0	0	9,875	0	0
Sandhurst District	...	...	...	...	4,699	3	3	472	0	25
Maryborough District	...	...	...	...	5,505	0	20	531	1	28
Castlemaine District	...	...	...	...	5,148	2	36	479	1	29
Ararat District	...	...	...	...	396	3	1	65	0	0
Gippsland District	...	...	...	...	5,477	2	8	146	0	0
Totals	...	...	...	...	84,196	3	29	20,554	1	20

NOTE.—The areas given in the second column are included in the first.

No. 33.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same not being worked being protected by Registration or by Exemption Certificates, in the several DIVISIONS and SUBDIVISIONS, on the 31st December 1869.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked being protected by Certificates.		
		A.	B.	P.	A.	B.	P.
BALLARAT ...	Central Division	11,200	0	0	4,542	0	12
	Southern Division	1,845	0	0	218	0	0
	Buninyong Division	3,760	3	1	765	2	0
	Smythesdale Division	5,351	2	18	922	3	35
	Creswick Division	4,730	1	0	2,037	1	0
	Gordon Subdivision	3,128	2	28	246	2	0
	Steiglitz Subdivision	2,060	2	17	145	2	15
	Blackwood Division and Blue Mountain South Subdivision	549	0	17	107	1	36
	Totals	32,626	0	1	8,985	1	18
BEECHWORTH ...	Beechworth Division	7,600	0	0	240	0	0
	Yackandandah Division	1,900	0	0	60	0	0
	Indigo Division	10,720	0	0	8,560	0	0
	Buckland Division	1,017	0	0	189	0	0
	Alexandra Subdivision	7,800	0	0	765	0	0
	Mansfield Subdivision	6	0	0	2	0	0
	Benalla Subdivision ... ..	...	...	...	...	...	...
	Gaffney's Creek Subdivision	160	0	0	4	0	0
	Wood's Point Subdivision	182	0	0	8	0	0
	Big River Subdivision	208	0	0	2	0	0
	Mitta-mitta Division	400	0	0	40	0	0
	Jamieson Subdivision	350	0	0	5	0	0
	Totals	30,343	0	0	9,875	0	0
SANDEHURST ...	Sandhurst Division	2,850	0	0	167	2	0
	Kilmore Division	300	0	0	75	0	0
	Heathcote Division and Waranga South Subdivision	434	3	3	75	2	18
	Waranga North Subdivision	615	0	0	152	0	0
	Raywood Division	500	0	0	2	0	7
	Totals	4,699	3	3	472	0	25
MARYBOROUGH ...	Maryborough Division	1,726	3	36	76	1	38
	Amherst Division	1,404	0	0	248	0	0
	Avoca Subdivision	750	0	0	80	0	0
	Dunolly and Tarnagulla Divisions	260	0	0	11	2	17
	Korong Division	1,040	0	0	43	0	0
	Redbank and St. Arnaud South Subdivisions	140	0	0	30	0	0
	St. Arnaud North Subdivision	184	0	24	42	1	13
	Totals	5,505	0	20	531	1	28
CASTLEMAINE ...	Castlemaine Division	964	2	0	46	3	32
	Fryer's Creek Division	2,135	2	10	85	2	0
	Hepburn Division	1,261	0	0	155	2	7
	Taradale and Kyneton Subdivision	342	0	19	142	0	16
	Tarrangower Division	245	2	33	29	2	31
	St. Andrew's Division	97	3	7	13	0	7
	Blue Mountain North Subdivision	102	0	7	6	2	16
	Totals	5,148	2	36	479	1	29
ARARAT ...	Ararat Division	115	3	1	...	...	...
	Pleasant Creek Division	100	0	0	60	0	0
	Barkly Division	70	0	0	...	...	...
	Raglan Division	111	0	0	5	0	0
	Totals	396	3	1	65	0	0
GIPPSLAND ...	Omeo Subdivision	986	2	0	...	...	...
	Mitchell River Division	600	0	0	10	0	0
	Crooked River Division	950	0	0	80	0	0
	Jericho Division	230	0	0	6	0	0
	Donnelly's Creek Division	163	2	38	...	...	...
	Stringer's Creek Subdivision	1,041	3	10	...	...	...
	Russell's Creek Subdivision	1,280	0	0	...	...	...
	South Tarraville Subdivision ... ..	...	...	...	...	...	...
	Bendoc Subdivision	225	2	0	50	0	0
	Totals	5,477	2	8	146	0	0

No. 34.

SUMMARY.

ESTIMATED VALUE of the CLAIMS in the several MINING DISTRICTS on the 31st December 1869.

Mining Districts.						Estimated Value of Claims.
						£
Ballarat District	...	...	...	...	...	2,111,569
Beechworth District	...	...	...	...	...	1,038,320
Sandhurst District	...	...	...	...	...	2,299,305
Maryborough District	...	...	...	...	...	1,028,284
Castlemaine District	...	...	...	...	...	833,396
Ararat District	...	...	...	...	...	729,100
Gippsland District	...	...	...	...	...	499,267
Totals	...	...	...	...	...	8,539,241

No. 35.

TABLE showing the ESTIMATED VALUE of the MINING CLAIMS in the several DIVISIONS and SUBDIVISIONS of each Mining District on the 31st December 1869.

Mining Districts.			Mining Surveyors and Registrars' Divisions and Subdivisions.							Value of Claims.
										£
BALLARAT	...	{	Central Division	...	...	...	...	...	...	643,169
			Southern Division	...	...	...	...	...	...	111,000
			Buninyong Division	...	...	...	...	...	...	98,600
			Smythesdale Division	...	...	...	...	...	...	86,600
			Creswick Division	...	...	...	...	...	...	850,000
			Gordon Subdivision	...	...	...	...	...	...	183,200
			Steiglitz Subdivision	...	...	...	...	...	...	41,000
			Blackwood Division and Blue Mountain South Subdivision	...	...	...	...	...	...	98,000
			Totals	...	...	...	...	2,111,569		
BEECHWORTH	...	{	Beechworth Division	...	...	...	...	...	...	410,400
			Yackandandah Division	...	...	...	...	...	...	203,000
			Indigo Division	...	...	...	...	...	...	60,000
			Buckland Division	...	...	...	...	...	...	65,020
			Alexandra Subdivision	...	...	...	...	...	...	120,500
			Mansfield Subdivision	...	...	...	...	...	...	25,000
			Benalla Subdivision	...	...	...	...	...	...	...
			Gaffney's Creek Subdivision	...	...	...	...	...	...	42,000
			Wood's Point Subdivision	...	...	...	...	...	...	61,200
			Big River Subdivision	...	...	...	...	...	...	9,500
			Mitta-mitta Division	...	...	...	...	...	...	11,700
Jamieson Subdivision	...	...	...	...	...	...	30,000			
			Totals	...	...	...	...	1,038,320		
SANDHURST	...	{	Sandhurst Division	...	...	...	...	...	...	2,100,800
			Kilmore Division	...	...	...	...	...	...	50,000
			Heathcote Division and Waranga South Subdivision	...	...	...	...	...	...	43,605
			Waranga North Subdivision	...	...	...	...	...	...	17,250
			Raywood Division	...	...	...	...	...	...	87,650
			Totals	...	...	...	...	2,299,305		
MARYBOROUGH	...	{	Maryborough Division	...	...	...	...	...	...	182,760
			Amherst Division	...	...	...	...	...	...	86,374
			Avoca Subdivision	...	...	...	...	...	...	45,000
			Dunolly and Tarnagulla Divisions	...	...	...	...	...	...	321,450
			Korong Division	...	...	...	...	...	...	300,000
			Redbank and St. Arnaud South Subdivision	...	...	...	...	...	...	60,000
			St. Arnaud North Subdivision	...	...	...	...	...	...	32,700
			Totals	...	...	...	...	1,028,284		
CASTLEMAINE	...	{	Castlemaine Division	...	...	...	...	...	...	64,500
			Fryer's Creek Division	...	...	...	...	...	...	194,800
			Hepburn Division	...	...	...	...	...	...	110,000
			Taradale and Kyneton Subdivision	...	...	...	...	...	...	137,450
			Tarrangower Division	...	...	...	...	...	...	269,700
			St. Andrew's Division	...	...	...	...	...	...	26,946
			Blue Mountain North Subdivision	...	...	...	...	...	...	30,000
			Totals	...	...	...	...	833,396		

No. 35.—TABLE showing the Estimated Value of Mining Claims, &c.—*continued*.

Mining Districts.			Mining Surveyors and Registrars' Divisions and Subdivisions.							Value of Claims.
ARARAT	...	...	Ararat Division	...	...	...	...	...	£
			Pleasant Creek Division	...	...	...	...	...	16,700
			Barkly Division	...	...	...	...	...	700,000
			Raglan Division	...	...	...	...	...	6,000
									6,400	
			Totals	...	...	...	...	729,100	
GIPPSLAND	...	...	Omeo Subdivision	...	...	...	...	...	7,250
			Mitchell River Division	...	...	...	...	...	18,000
			Crooked River Division	...	...	...	...	...	21,150
			Jericho Division	...	...	...	...	...	10,200
			Donnelly's Creek Division	...	...	...	...	...	7,400
			Stringer's Creek Subdivision	...	...	...	...	...	407,220
			Russell's Creek Subdivision	...	...	...	...	...	10,800
			South Tarraville Subdivision	...	...	...	...	...	...
			Bendoc Subdivision	...	...	...	...	...	17,247
			Totals	...	...	...	...	499,267	

No. 36.

SUMMARY.

LENGTH of WATER RACES and their APPROXIMATE COST, in the several MINING DISTRICTS,
31st December 1869.

Mining Districts.						Length of Races.		Approximate Cost.
						miles chains.		£
Ballarat District	...	...	...	...	...	253	33	22,211
Beechworth District	...	...	...	...	...	946	60	199,954
Sandhurst District	...	...	...	...	...	54	10	4,150
Maryborough District	...	...	...	...	...	202	35	9,622
Castlemaine District	...	...	...	...	...	257	76	24,105
Ararat District	...	...	...	...	...	90	60	3,767
Gippsland District	...	...	...	...	...	144	49	12,880
Totals						1,950	3	276,689

No. 37.

TABLE showing the LENGTH of WATER RACES and their APPROXIMATE COST, in the several DIVISIONS
and SUBDIVISIONS of each Mining District, 31st December 1869.

Mining Districts.			Mining Surveyors and Registrars' Divisions and Subdivisions.			Length of Races.		Approximate Cost.	Remarks.
						miles chains.		£	
BALLARAT	...	...	Central Division	...	...	32	40	810	
			Southern Division	...	...	...	...	...
			Buninyong Division	...	...	7	0	210	
			Smythesdale Division	...	...	11	24	339	
			Creswick Division	...	...	108	49	13,535	
			Gordon Subdivision	...	...	6	40	167	
			Steiglitz Subdivision	...	...	21	0	500	
			Blackwood Division and Blue Mountain	...	...	...	...	...
			South Subdivision	...	...	66	40	6,650	
			Totals	...	...	253	33	22,211	
BEECHWORTH	...	...	Beechworth Division	...	...	334	60	122,980	
			Yackandandah Division	...	...	195	0	30,400	
			Indigo Division	...	...	...	...	...
			Buckland Division	...	...	*162	20	11,444	
			Alexandra Subdivision	...	...	2	60	330	
			Mansfield Subdivision	...	...	30	0	1,500	
			Benalla Subdivision	...	...	...	...	...
			Gaffney's Creek Subdivision	...	...	38	0	7,600	
			Wood's Point Subdivision	...	...	20	40	6,000	
			Big River Subdivision	...	...	23	40	4,700	
			Mitta-mitta Division	...	...	120	0	12,000	
			Jamieson Subdivision	...	...	20	0	3,000	
			Totals	...	...	946	60	199,954	

* Several races included herein have not been used for some time past.

No. 37.—TABLE showing the Length of Water Races, &c.—continued.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.			Length of Races.		Approximate Cost.	Remarks.
				miles	chains.	£	
SANDHURST	...	{	Sandhurst Division	32	0	2,250	
			Kilmore Division	18	0	1,360	
			Heatheote Division and Waranga South Subdivision ... ..	...	...	...
			Waranga North Subdivision ... ..	...	...	...
			Raywood Division	4	10	540	
			Totals	54	10	4,150	
MARYBOROUGH	...	{	Maryborough Division ... ..	...	...	...
			Aniherst Division	190	0	9,000	
			Avoca Subdivision	7	0	600	
			Dunolly and Tarnagulla Divisions	5	35	22	
			Korong Division ... ..	...	...	...
			Redbank and St. Arnaud South Subdivisions ... ..	...	...	...
			St. Arnaud North Subdivision ... ..	...	...	...
			Totals	202	35	9,622	
CASTLEMAINE	...	{	Castlemaine Division ... ..	...	...	...
			Fryer's Creek Division	19	0	1,740	
			Hepburn Division	231	4	22,100	
			Taradale and Kyneton Subdivision	4	40	145	
			Tarrangower Division ... ..	...	...	...
			St. Andrew's Division ... ..	...	...	...
ARARAT	{	Blue Mountain North Subdivision	3	32	120	
			Totals	257	76	24,105	
			Ararat Division	3	60	37	
			Pleasant Creek Division ... ..	...	...	...
			Barkly Division ... ..	...	...	...
GIPPSLAND...	...	{	Raglan Division	* 87	0	3,730	
			Totals	90	60	3,767	
			Omeo Subdivision	82	0	5,960	
			Mitchell River Division	1	3	300	
			Crooked River Division	34	0	680	
			Jericho Division	14	40	3,650	
			Donnelly's Creek Division	4	76	1,490	
			Stringer's Creek Subdivision	1	10	450	
			Russell's Creek Subdivision	2	0	250	
			South Tarraville Subdivision ... ..	...	...	...
			Bendoe Subdivision	5	0	100	
			Totals	144	49	12,880	

* Of this length about thirty miles are supposed to be abandoned.

No. 38.

RETURN of the NUMBER of WATER-RIGHT LICENSES in force on the 31st December 1869.

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
174 ⁴	1,553 0 26	432 2 ⁴ / ₁₀₀	187,926,465	361 3 17	434,026,497	1,085 10 0

No. 39.

THE NUMBER of WATER-RIGHT LICENSES for Gold-Mining purposes issued during the Year 1869 is as follows :—

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
25	141 2 17	62 0 ³⁵ / ₁₀₀	30,455,466	38 3 24	198,594,405	186 0 0

No. 40.

SUMMARY.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1869 of Sums lodged with the Wardens' Clerks of the several MINING DISTRICTS as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Balances on hand on the 31st December 1868.	Total Deposits received during the Year.	Total Disbursements made during 1869.	Balances on hand on 31st December 1869.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballarat	1,754 2 0	4,645 3 6	2,971 15 10	3,427 9 8
Beechworth	1,901 0 1	5,260 15 4	4,528 14 5½	2,633 0 11½
Sandhurst	893 0 2	2,616 10 0	1,348 13 3	2,160 16 11
Maryborough	1,879 19 8	7,884 13 9	5,170 14 0	4,593 19 5
Castlemaine	787 19 1	2,560 11 10	1,503 0 0	1,845 10 11
Ararat	1,964 19 3	3,204 4 1	2,996 8 8½	2,172 14 7½
Gippsland	798 17 1	1,495 14 6	322 15 6	1,971 16 1
Totals	9,979 17 4	27,667 13 0	18,842 1 9	18,805 8 7

No. 41.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1869 of Sums lodged with the Wardens' Clerks of the several DIVISIONS of the Mining Districts as deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Divisions.	Balances on hand 1st January 1869.	Total Deposits received during the Year.	Total Disburse- ments made during 1869.	Balances on hand 31st December 1869.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLARAT ...	Ballarat	358 10 9	287 16 6	517 10 9	128 16 6
	Buninyong ... ..	...	15 0 0	15 0 0	...
	Smythesdale	180 19 9	342 0 0	301 1 1	221 18 8
	Creswick	160 0 0	639 7 0	610 18 6	188 8 6
	Gordon	5 0 0	5 0 0	...	10 0 0
	Steiglitz	840 12 3	776 0 0	797 16 10	818 15 5
	Blackwood	193 19 3	2,445 0 0*	603 0 0	2,035 19 3
	Clunes	15 0 0	135 0 0	126 8 8	23 11 4
	Totals	1,754 2 0	4,645 3 6	2,971 15 10	3,427 9 8
BEECHWORTH ...	Beechworth	*495 7 10	1,656 15 4	1,560 13 11	591 9 3
	Yackandandah	171 0 0	186 0 0	236 9 1	120 10 11
	Chiltern	45 0 0	150 0 0	29 12 11	165 7 1
	Rutherglen	50 0 0	345 0 0	341 15 10	53 4 2
	Morse's Creek	167 5 4	1,062 0 0	685 14 11½	543 10 4
	Jamieson	228 3 8	125 0 0	69 5 0	283 18 8½
	Wood's Point	201 18 7	488 0 0	423 0 8	266 17 11
	Benalla ... ..	...	75 0 0	...	75 0 0
	Alexandra	469 1 1	1,113 0 0	1,105 14 10	476 6 3
	Mansfield	73 3 7	60 0 0	76 7 3	56 16 4
	Totals	1,901 0 1	5,260 15 4	4,528 14 5½	2,633 0 11½
SANDHURST ...	Sandhurst	473 18 10	1,765 0 0	723 15 9	1,515 3 1
	Kilmore	79 13 5	292 0 0	255 12 8	116 0 9
	Heathcote	55 15 1	374 10 0	126 13 5	303 11 8
	Waranga	150 16 9	65 0 0	92 5 7	123 11 2
	Raywood	132 16 1	120 0 0	150 5 10	102 10 3
	Totals	893 0 2	2,616 10 0	1,348 13 3	2,160 16 11
MARYBOROUGH ...	Maryborough	321 11 9	1,229 9 8	518 15 1	1,032 6 4
	Majorca	141 4 11	340 0 0	90 5 7	390 19 4
	Talbot	369 11 6	2,332 10 0	2,152 11 6	549 10 0
	Carisbrook ... ..	...	...	...	...
	Avoca	293 13 3	320 0 0	354 15 2	258 18 1
	Dunolly	121 2 1	700 0 0	379 2 7	441 19 6
	Tarnagulla	144 12 2	860 2 6	485 15 5	518 19 3
	Korong ... ..	...	...	...	...
	Inglewood	187 8 9	380 0 0	390 6 1	177 2 8
	St. Arnaud	300 15 3	1,722 11 7	799 2 7	1,224 4 3
	Totals	1,879 19 8	7,884 13 9	5,170 14 0	4,593 19 5

* This balance includes a sum of £30 received during the interval between the 23rd and 31st December 1868, but no account of its receipt was forwarded in time for its inclusion in the *Mineral Statistics for 1868*. Some small differences have also been adjusted in this return.

No. 41.—Receipts, Disbursements, and Balances in hand during the Year 1869 of Sums lodged with the Wardens' Clerks, &c.—*continued.*

Mining Districts.	Divisions.	Balances on hand 1st January 1869.	Total Deposits received during the Year.	Total Disburse- ments made during 1869.	Balances on hand 31st December 1869.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
CASTLEMAINE	Castlemaine ...	163 14 0	375 0 0	295 9 5	243 4 7
	Fryerstown ...	80 0 0	624 0 0	345 13 8	358 6 4
	Daylesford ...	272 2 2	445 0 0	352 10 8	364 11 6
	Taradale ...	9 14 6	45 0 0	...	54 14 6
	Maldon ...	225 16 6	477 0 0	206 16 6	496 0 0
	Anderson's Creek ...	17 7 6	410 0 0	219 16 0	207 11 6
	Gisborne ...	8 5 11	79 11 10	41 12 7	46 5 2
	Trentham ...	10 18 6	75 0 0	27 8 10	58 9 8
	Kyneton ...	...	30 0 0	13 12 4	16 7 8
	Totals ...	787 19 1	2,560 11 10	1,503 0 0	1,845 10 11
ARARAT	Ararat ...	233 1 11	380 0 0	353 2 6½	259 19 4½
	Beaufort ...	101 11 8	260 0 0	192 15 2	168 16 6
	Stawell ...	1,575 5 8	2,104 4 1	2,102 12 5	1,576 17 4
	Landsborough ...	55 0 0	460 0 0	347 18 7	167 1 5
	Totals ...	1,964 19 3	3,204 4 1	2,996 8 8½	2,172 14 7½
GIPPSLAND	Omeo ...	...	63 14 6	...	63 14 6
	Grant ...	27 6 0	90 0 0	42 6 0	75 0 0
	Bairnsdale ...	15 0 0	269 0 0	30 0 0	254 0 0
	Sale ...	...	...	...	...
	Palmerston ...	...	...	...	...
	Stringer's Creek ...	756 11 1	1,073 0 0	250 9 6	1,579 1 7
	Totals ...	798 17 1	1,495 14 6	322 15 6	1,971 16 1

No. 42.

RETURN of the QUANTITIES of GUNPOWDER issued, &c., on the several Goldfields during the Year 1869.

Mining Districts.	Quantity In Stock at the commencement of the Year.	Quantity Issued during the Year.	Quantity In Stock at the end of the Year.
	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.
Ballarat District ...	12 7 3 2	56 17 0 6	8 2 3 22
Beechworth District ...	0 6 2 0	1 4 0 0	0 17 3 0
Sandhurst District ...	16 11 2 22	100 13 0 19	13 2 2 25
Maryborough District ...	7 13 3 21	16 8 3 8	6 7 1 19
Castlemaine District ...	5 8 2 23	21 3 3 15	6 4 2 6
Ararat District ...	4 16 1 20	16 14 3 8	3 10 3 26
Gippsland District...	3 2 1 3	3 2 0 6	0 10 3 21
Totals ...	50 7 1 7	216 3 3 6	38 17 1 7

No. 43.

SUMMARY.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1869.

Mining Districts.	Number of Companies.	Number of Shares.	Nominal Capital.
			£
Ballarat District ...	135	402,492	1,555,300
Beechworth District ...	53	240,086	772,875
Sandhurst District...	44	643,636	583,688
Maryborough District ...	87	322,554	1,157,656
Castlemaine District ...	39	131,686	298,414
Ararat District ...	45	153,060	606,160
Gippsland District ...	20	80,746	261,136
Totals ...	423	1,974,260	5,235,229

NOTE.—It appears from the returns forwarded by the Clerks of the Courts of Mines that three companies have been wound up, with 10,400 shares, and a nominal capital of £27,600, and several companies are in process of being wound up.
(For information relative to companies registered and companies wound up previous to 1st January 1869, see Tables Nos. 42 and 43, *Mineral Statistics*, 1868.)

No. 44.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1869.

Mining Districts.	Courts.	Number of Companies.	Number of Shares.	Nominal Capital.
				£
BALLARAT	Ballarat	35	106,872	402,800
	Blackwood	33	101,000	438,650
	Buninyong	20	60,600	198,650
	Creswick	13	52,300	225,650
	Steiglitz	9	28,500	112,000
	Smythesdale	25	53,220	177,550
	Totals	135	402,492	1,555,300
BEECHWORTH	Beechworth	12	38,816	179,600
	Bright	13	38,520	209,800
	Chiltern	5	33,000	165,000
	Jamieson	7	60,950	70,200
	Mansfield	5	32,000	85,000
	Rutherglen ... ..	...	...	...
	Wood's Point	10	32,800	51,275
	Yackandandah	1	4,000	12,000
	Totals	53	240,086	772,875
SANDHURST	Sandhurst	38	623,636	514,888
	Heathcote	1	2,600	5,200
	Kilmore	5	17,400	63,600
	Rushworth ... ..	...	...	...
	Totals	44	643,636	583,688
MARYBOROUGH	Maryborough	9	31,900	121,800
	Amherst	27	111,790	429,880
	Avoca	5	20,400	73,200
	Carisbrook	3	7,200	18,600
	Dunolly	6	22,200	45,600
	Inglewood	11	28,440	101,200
	St. Arnaud	20	68,340	254,700
	Tarnagulla	6	32,284	112,676
	Totals	87	322,554	1,157,656
CASTLEMAINE	Castlemaine	6	39,180	59,400
	Anderson's Creek and Heidelberg	3	10,400	12,900
	Daylesford	13	36,562	98,010
	Fryerstown	5	8,340	29,300
	Kyneton	5	10,600	39,200
	Maldon	6	24,604	51,604
	Taradale	1	2,000	8,000
	Totals	39	131,686	298,414
ARARAT ...	Ararat	5	10,620	42,100
	Beaufort ... ..	...	...	...
	Pleasant Creek	40	142,440	564,060
	Totals	45	153,060	606,160
GIPPSLAND	Bairnsdale ... ..	...	...	...
	Sale	6	12,900	52,300
	Walhalla	14	67,846	208,836
	Totals	20	80,746	261,136

No. 45.

STATEMENT of the REVENUE directly derived from the Goldfields during the Year 1869, compiled from the Treasury Statements of Revenue, &c.

	£	s.	d.
Amount received for Miners' Rights	13,466	0	0
Ditto ditto Business Licenses	3,915	0	0
Ditto ditto Leases of Auriferous and Mineral Lands	23,644	11	11
Ditto ditto Water-right and Searching Licenses	917	0	6
Totals	£41,942	12	5

NOTE.—Moneys received from holders of and applicants for mining leases under the heads of fees, fines, and forfeitures, are not included in this Return.

No. 46.

TABLE showing the WAGES paid per Week for different kinds of Labor in the several DIVISIONS and SUBDIVISIONS of each Mining District during the Year 1869, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	General Manager.	Legal Manager.	Mining Manager.	Engineer.	Engine-driver.	Pitman.	Blacksmith.	Carpenter.	Foreman of Shift.	Miners.	Surface Men (Laborers).	Boys.	Chinese.
BALLARAT.	Central Division	£6	£2 to £6	£5	£5	£2 10s. to £2 8s. to £3	£3	£3 10s. to £3 to £3 10s.	£3	£2 10s. to £2 18s.	£2 2s. to £2 5s.	£2	£1 10s. to £1 5s.	£1 7s. 6d. to £1 10s.
	Southern Division	£4	£2 to £5	£2 5s. to £5	£3 10s.	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 5s.	£2 8s.	£1 10s. to £1 5s.	£1 10s.
	Buninyong Division	£5	£3	£4	£3	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 5s.	£2 5s.	£1 15s. to £1 17s. 6d.	£1 15s.
	Smythesdale Division	£2 6s. to £5	£4 to £6	£4 to £6	£3 8s. 3d. to £3 10s.	£2 10s. to £3	£3 5s.	£2 10s. to £3 to £3 12s.	£2 10s.	£2 15s. to £2 18s.	£2 5s.	£2 5s.	£1 12s. to £2	£1 10s. to £2
	Creswick Division	£4 10s. to £15 7s. 8d.	£2 to £6	£3 to £11 10s. 9d.	£4 to £5	£2 10s. to £3 9s.	£3 to £5 10s.	£3 6s. to £3 to £3 12s.	£3 5s.	£2 14s. to £2 15s.	£2 5s. to £2 8s.	£2 15s.	£1 10s. to £1 16s.	£1 10s.
	Gordon Subdivision	£12	£3 10s.	£4	£3 10s.	£2 15s.	£2 15s.	£2 15s.	£2 10s.	£2 15s.	£2 5s.	£2 5s.	£1 10s.	£1 10s.
	Steiglitz Subdivision	...	£1 to £3	£3 to £5	...	£2 10s. to £3	£2 15s.	£2 14s. to £3	£2 14s. to £3	...	£2 5s. to £2 10s.	£2 5s.	£1 4s. to £1 5s.	...
BEECHWORTH.	Blackwood Division and Blue Mountain South Subdivision	£4 10s. to £6	£1 10s. to £3	£3 10s. to £5	£3 10s.	£3	£3 10s.	£3	£3	...	£2 5s. to £2 10s.	£2 5s.	£1 10s. to £1 16s.	£1 10s.
	Beechworth Division	£6 10s.	£1 to £4 10s.	£3 to £5	£6	£3	£2 10s.	£2 10s. to £3	£2 10s. to £3	£3	£2 to £3	£2 5s.	£1 10s.	£1 10s.
	Yackandandah Division	£6	£2 to £3	£5	£4 to £5	£2 15s. to £3	£2 10s.	£3 10s. to £4	£2 15s. to £3 3s.	£3	£2 to £2 15s.	£2 to £2 5s.	£1 10s. to £1 10s.	£1 8s. to £1 10s.
	Indigo Division	£5 to £5 15s.	£2 to £3	£4	£4 to £5	£2 15s.	£2 15s.	£3 to £4	£3 to £4	£3 10s.	£2 10s. to £3	£2 10s.	£1 5s.	£1 10s. to £2
	Buckland Division	...	£2	£4 to £6	£3 10s. to £4	£3 6s. to £3 10s.	£2 5s.	£3 to £4	£3 12s.	£2 15s. to £3	£2 10s.	£2 10s.	£1 5s.	£1 10s. to £2
	Alexandra Subdivision	£6	£2	£3 12s. to £4 10s.	£4	£2 15s.	£2 5s.	£3 12s.	£3 12s.	£2 15s. to £3	£2 10s.	£2 10s.	£1 5s.	£1 10s.
	Mansfield Subdivision	£5	£3	£5	£5	£4	£2 5s.	£4	£3 10s.	...	£2 10s.	£2	£1	£2
SANDHURST.	Benalla Subdivision	£5	£3	£5	£4 10s.	£3 10s.	£3	£3 10s. to £4	£4	£3 10s.	£3	£3	£1 10s.	£2
	Gaffney's Creek Subdivision	£5	£1 to £1 10s.	£4 to £5	£4 10s.	£3 10s.	£3	£3 10s. to £4	£4	£3 10s.	£3	£3	£1 10s.	£2
	Wood's Point Subdivision	£4	10s. to £1	£4 10s. to £5	£4 10s.	£3 15s.	£3	£3 15s.	£3 12s.	£3 10s.	£3	£3	£1 10s.	£2
	Big River Subdivision	£5	£1	£4 10s.	£4 10s.	£3 10s.	£3	£3 15s.	£3 15s.	£3 10s.	£3	£3	£1 5s.	£2
	Mitta-mitta Subdivision	...	£1	£3 10s.	£3 10s.	£3	£3	£3 10s.	£3 10s.	£3 10s.	£3	£3	£1 5s.	£2
	Jamieson Subdivision	...	£1	£3 10s.	£3 10s.	£3	£3	£3 10s.	£3 10s.	£3 10s.	£3	£3	£1 5s.	£2
	Sandhurst Division	£5 to £6	15s. to £3	£2 10s. to £3 10s.	£3 5s. to £5	£2 10s. to £3	£2 10s. to £3	£3 to £3 10s.	£2 8s. to £3	£2 10s. to £3	£2 5s.	£2 2s.	15s. to £1 15s.	£2 5s.
SANDHURST.	Kilmore Division	£5	£1	£3 10s.	£2 10s.	£2 5s.	£3 10s.	£2 2s.	£3	£2 15s.	£2 7s. 6d.	£2	£1 15s.	£2 5s.
	Ifeaticote Division and Waranga South Subdivision	£5	£2	£2 10s. to £3 10s.	£2 10s.	£2 10s. to £3	£2 5s.	£3 to £3 10s.	£2 15s. to £3	£2 15s.	£2 10s.	£2 10s.	£1 15s.	£2 5s.
	Waranga North Subdivision	£4	£1	£4 10s.	£4	£3	£3	£3	£3	£2 15s.	£2 10s.	£2 5s.	£1 10s.	£1 15s.
	Raywood Division	£2 5s. to £4	£1	£2 5s. to £3 15s.	£2 5s. to £3 10s.	£2 15s.	£2 5s.	£2 10s. to £2 15s.	£2 10s. to £2 15s.	£2 10s.	£2 5s.	£2 5s.	£1 15s.	£2 5s.

MARYBOROUGH.									
Maryborough Division ...	£3 to £4	£1 10s. to £2	£3 to £3 10s.	£2 15s. to £3	£2 10s.	£2 5s. to £3	£2 5s. to £3 10s.	£2 5s. to £3 10s.	£2 0 £2 5s.
Anherst Division ...	£3 10s. to £4	£1 to £3	£3 10s. to £5	£3 to £4 10s.	£2 10s. to £3	£2 10s.	£2 5s. to £3	£2 5s. to £3 10s.	£1 10s.
Avoca Subdivision ...	...	£1 10s. to £3	£5	£3	£2 10s. to £3	£3	£2 10s.	£2 10s.	£1 8s.
Dunolly and Tarnagulla Divisions ...	...	£2 to £3	£4 to £5	£4	£2 10s. to £3	£3	£2 10s.	£2 10s.	£1 10s.
Korong Division ...	£3 10s.	£1	£4	£3 10s.	£2 10s.	£2 10s.	£2 10s.	£2 10s.	...
Redbank and St. Arnaud Subdivisions ...	...	£2 10s. to £4	£4 10s. to £5	£4 to £5	£2 10s.	£2 10s.	£2 10s.	£2 10s.	...
St. Arnaud North Subdivision ...	...	...	£3	£3 6s.	£2 10s. to £3 5s.	£3	£2 10s.	£2 10s.	...
CASTLEMAINE.									
Castlemaine Division ...	£3 to £6	...	£2 10s. to £4	£3 to £4	£1 10s. to £2 15s.	£2 to £2 5s.	£2 10s.	£2 10s.	12s. 6d. to 15s.
Fryer's Creek Division ...	£20	...	£3 to £4	£3	£2 5s. to £3	£2 5s.	£2 5s.	£2 5s.	...
Hopburn Division ...	£1 to £2 5s.	£1 10s. to £2	£2 5s. to £5 10s.	£3	£2 5s. to £3	...	£2 5s.	£2 5s.	...
Tarnadale and Kyneton Subdivision ...	...	£4	£4 to £5	£3 5s. to £3 10s.	£2 5s. to £3	£2 5s.	£2 5s.	£2 5s.	...
Tarrangower Division ...	£4	£2	£3 10s.	£3 10s.	£2 10s.	£3	£3	£2 5s. to £2 10s.	...
St. Andrew's Division ...	£5	£3	£5	£4 10s.	£3 10s.	£3	£4	£3	£1 4s. 10d.
Blue Mountain North Subdivision ...	£4	£6	£4	£3	£2 10s.	£2 10s.	£3	£2 8s.	...
ARARAT.									
Ararat Division ...	...	£1 to £4	£4 to £5	£5	£2 10s.	£2 10s.	£2 10s.	£2 10s.	...
Pleasant Creek Division ...	...	£2	£3 to £4	£4 to £6	£3 10s. to £4	£2 10s.	£2 10s.	£2 10s.	...
Barkly Division ...	...	...	...	...	£3 10s.	£2 10s.	£4	£2 10s.	...
Raglan Division ...	...	£2	£3 10s.	...	£3	...	...	£2 5s. to £2 10s.	...
GIPPSLAND.									
Omeco Subdivision ...	£5	£1	£4	£4	£3	£3	£4	£3	£2 10s.
Mitchell River Division ...	£5	...	£4 to £5	£4	£3 10s.	£3	£3 10s.	£2 10s. to £3	£2 2s.
Crooked River Division ...	£3 to £5	£3 to £4	£3 10s. to £6	£4	£3	...	£3 10s.	£3	...
Jericho Division ...	£5	10s. to £1 10s.	£4 10s. to £5	£4 10s.	£3 10s.	£3	£4	£3	£3 †
Donnelly's Creek Division ...	£6	£1 10s.	£4	£5	£3	£3	£4	£3	£3
Stringer's Creek Subdivision ...	£8 to £10	£2	£5 to £6	£4 10s.	£3 to £3 10s.	£3	£4 to £4 10s.	£3	£3
Russell's Creek Subdivision ...	...	£1 10s.	£7	£6	£4	...	£3 12s.	£3	£2 10s.
South Tarraville Subdivision ...	...	...	...	...	...	...	...	...	...
Bendoc Subdivision ...	...	...	£3 to £3 10s.	...	£2 5s.	...	£2 5s. to £3	£2 5s.	£1 10s.

* Mining manager also engineer.

† A large number of Chinese are employed, but under tribute.

‡ Able-bodied laborers received in this district the same wages as miners, namely, £3 per week (Mining Registrar's remark).

§ £10 paid to general managers who act also as legal and mining managers.

No. 47.

THE PRICES OF MINING MATERIALS in some of the more important Mining centres are as follow :—

BALLARAT.—Castings : Iron puddling machines, 15s. per cwt. ; harrows, 15s. per cwt. ; lift pumps, from 6 in. to 22 in., including workings and connections, 20s. per cwt. ; winding and pumping gear, 24s. per cwt. ; water pipe, 13s. per cwt. ; stamping batteries, with iron frames and fittings connected with 10 stamps, say 10 cwt. per head or per stamp or hammer, according to construction, £35. Gas pipe, $\frac{3}{4}$ in. to 2 in., 4d. to 1s. 3d. per foot. Iron rivets, 37s. 4d. to 56s. per cwt. Chains, round, sizes $\frac{3}{16}$ to 1 in., 22s. to 45s. per cwt. Rope : Flat wire, 3 in. x $\frac{1}{8}$ in. to 4 in. x $\frac{1}{8}$ in., 65s. to 75s. per cwt. ; flat hemp, $\frac{1}{4}$ in. to 6 in., 78s. to 80s. per cwt. ; flat English manilla, $\frac{1}{4}$ in. to 6 in., 80s. to 90s. per cwt. ; round manilla, different sizes, colonial, 65s. to 68s. per cwt. Powder : Glazed blasting, 64s. to 73s. per cwt. ; Kames', 64s. to 73s. per cwt. ; Hall's, 64s. to 73s. per cwt. Fuze : Single tape, per doz. coils, 10s. 6d. ; double tape, 13s. to 14s. Candles, sperm, per doz. lbs., 11s. 6d. Oil : Olive, per gal., 6s. to 7s. ; colza, 5s. 6d. to 6s. per gal. ; castor, 5s. 6d. to 6s. 3d. per gal. ; kerosene, 2s. 9d. per gal. Tallow : beef and mutton, 42s. per cwt. Quicksilver, 2s. 3d. to 2s. 6d. per lb. Picks : Single-ended driving, 42s. per doz. ; single-ended sinking, 45s. to 54s. per doz. ; double-ended, 60s. to 70s. per doz. Pick hilts : Hickory, 14s. to 15s. per doz. ; colonial lightwood, 10s. per doz. Shovels : Long-handled, 60s. to 75s. per doz. ; D-handled, 58s. to 74s. per doz. ; Cornish socket-handle, 45s. to 50s. per doz. Shovel handles : English, 18s. per doz. ; colonial, 14s. per doz. White yarn : Flax packing, 1s. 6d. to 1s. 8d. per lb. Hemp, packing, 10d. to 1s. per lb. Iron : Common, 14s. to 15s. per cwt. ; best Low Moor, 36s. to 40s. per cwt. Leather : Colonial, for pumps, 2s. per lb. ; English, 3s. per lb. ; belt leather, colonial, 1s. 6d. to 1s. 9d. per lb. Gutta percha, sheet, for pump clacks, 4s. per lb. Indiarubber, sheet, $\frac{1}{4}$ in. to $\frac{3}{4}$ in. thick, 3s. to 3s. 6d. per lb. ; tubing, &c., 4s. to 4s. 6d. per lb. Steel : Cast, 56s. to 66s. per cwt. ; blister, 42s. to 45s. per cwt. ; shear, 56s. to 68s. per cwt. ; spring, 37s. 4d. per cwt. ; Stubbs' No. 2, 112s. per cwt.

CRESWICK.—Castings : Stamp-head and beds, 15s. to 17s. per cwt. ; wheels, &c., 24s. per cwt. Hemp rope, 3 in. to 8 in., 69s. per cwt. Blasting powder, 6d. to 8d. per lb. Fuze, 12s. to 13s. per doz. coils. Candles, 12s. per doz. lbs. Oil : Colza, 5s. 6d. per gal. ; machine, 6s. 6d. per gal. Tallow, 40s. per cwt. Quicksilver, 2s. to 2s. 2d. per lb. Picks, 48s. to 72s. per doz. Pick handles, 11s. to 16s. per doz. Shovels, long-handled, 60s. to 74s. per doz. Leather : English, for pumps, 2s. 6d. per lb. Cotton waste, $7\frac{1}{2}$ d. to 8d. per lb. Iron, common, 15s. per cwt. Steel : Cast, 60s. per cwt. ; blister, 46s. per cwt. Sheet indiarubber, 3s. to 4s. 6d. per lb.

BRIGHT.—Castings, plain, 28s. per cwt. Chain, small and medium sizes, 52s. per cwt. Hemp and wire rope, 80s. per cwt. Blasting powder, 10d. per lb. Indiarubber fuze, double tape, 15s. per doz. coils. Sperm candles, best brands, 14s. per doz. lbs. Oils : Colza, 8s. per gal. ; olive, 9s. per gal. ; Chinese, 6s. per gal. ; kerosene, 5s. per gal. Quicksilver, 3s. per lb. Picks : Double-ended, 80s. per doz. ; single-ended, 70s. per doz. ; handles, 21s. per doz. Shovels, best long-handled, 72s. to 84s. per doz. Leather : Colonial, 2s. 6d. per lb. ; English, 3s. 6d. per lb. Iron, common, 32s. 8d. per cwt. Steel : Cast, 94s. per cwt. ; blister, 90s. per cwt.

Carriage of the above goods from Melbourne has been exceptionally high during the past year—ranging from £9 10s. to £11 10s. per ton.

N.B.—On the Buckland and Harrietteville the above goods may be quoted about 5 per cent. dearer than at Bright.

WOOD'S POINT.—Castings of white metal (hematite), stamp-heads, &c., 32s. per cwt. Rope, manilla, 84s. per cwt. ; extra thickness, 80s. per cwt. Powder, best glazed, 75s. per 100 lbs. Fuze, 14s. per doz. coils. Candles, Neva, 15s. per doz. lbs. Oil : Castor, 10s. per gal. ; olive, 10s. per gal. Quicksilver, 2s. 2d. per lb. Mining picks, heads, 18s. per doz. Pick handles, 18s. per dozen. Shovels : Long-handled, 105s. per doz. ; short-handled, 84s. per doz. Leather, belting and grain, 1s. 6d. per lb. Vulcanized indiarubber belting, four-ply, 4s. per foot. Iron, best wrought, 37s. 4d. per cwt. Steel : Cast, 76s. per cwt. ; blister, 72s. per cwt.

N.B.—The carriage of goods from Melbourne has been as low as £10 10s. by the Yarra track and horse teams, and as high as £22, according to the season. The Wood's Point stores regulate the price at Gaffney's and Jericho, at which places, however, a number of the above articles are not often obtainable, but must be purchased at Jamieson or Wood's Point. At the Big River, Enoch's Point, prices for such articles among the above as can be obtained are about 5 per cent. higher than at Wood's Point.

SANDHURST.—Stamper-boxes, heads and shoes, £16 to £17 per ton. Pump piping, 17s. 6d. per cwt. Water pipe, English, about £13 per ton. Belt pulleys, 26s. per cwt. Cams, 93s. per cwt. Discs, 90s. per cwt. Iron rails, small, 14s. per cwt. Iron, 17s. per cwt. ; best BBH crown, 18s. per cwt. Steel : Octagon, 60s. per cwt. ; blister, $6\frac{1}{2}$ d. per lb. ; double shear, 7d. per lb. Nails, 28s. per cwt. Gratings or sieves for stamper-boxes, 1s. 6d. per square foot. Quicksilver, 2s. to 2s. 3d. per lb. Copper, 1s. 8d. per lb. Shovels : Short-handled, 60s. to 72s. per doz. ; long-handled, 66s. to 78s. per doz. Picks, 45s. to 48s. per doz. Pick handles (colonial wood), 9s. to 10s. per doz. Candles : Best tallow, 4s. 9d. per doz. lbs. ; sperm, 10s. to 12s. per doz. lbs. Oils : Olive, 7s. to 7s. 6d. per gal. ; colza, 6s. to 6s. 6d. per gal. ; castor, 6s. per gal. ; neatsfoot, 7s. per gal. ; kerosene, 3s. per gal. Tallow, $3\frac{1}{2}$ d. to 4d. per lb. Powder : P. and W., 7d. per lb. ; Hall's, $7\frac{1}{2}$ d. per lb. ; contract for the year, 6 $\frac{1}{4}$ d. Fuze, Bickford's double tape, 11s. 6d. to 12s. per doz. ; single, 9s. 6d. to 10s. 6d. per doz. Pump Leather : English, 3s. per lb. ; colonial, 1s. 2d. per lb. ; belt leather, 1s. 9d. per lb. Rope : Wire, $\frac{1}{4}$ in. to 1 in., 56s. per cwt. ; manilla, 8d. per lb. Gun cotton, 1 in., 1 $\frac{1}{8}$ in., 1 $\frac{1}{4}$ in., 15s. 6d. per box of 125 cartridges. Engine packing, 1s. to 1s. 9d. per lb. Cotton waste, 8d. to 10d. per lb.

MARYBOROUGH.—Castings, whim and truck wheels, 18s. per cwt. Chains, short links, &c., 42s. per cwt. Rope, manilla, $\frac{1}{4}$ in. to 1 in., 10d. per lb. ; ditto, 1 in. to 6 in., 70s. per cwt. Powder, blasting, 66s. 8d. per 100 lbs. Fuze, colonial, 12s. per doz. coils. Candles, sperm, 12s. per doz. lbs. Oils : Colza, 6s. per gal. ; castor, 6s. per gal. ; olive, 8s. 6d. per gal. ; kerosene, 3s. to 3s. 3d. per gal. Quicksilver, 2s. 8d. per lb. Iron, best BBH, 17s. per cwt. Steel : Cast, 60s. per cwt. ; blister, 47s. per cwt. ; shear, 56s. per cwt. Leather : English hide, 2s. 6d. per lb. ; belt, 1s. 10d. per lb. Tallow : Mutton, 36s. per cwt. ; beef, 30s. to 34s. per cwt. Green hides for buckets, 21s. each. Picks, driving and sinking, single ends, weight 3 to 6 lbs., 30s. to 60s. per dozen. Pick hilts, &c., colonial principally, 9s. per dozen. Shovels, American principally, 66s. to 72s. per dozen.

CASTLEMAINE.—Castings : Stamp-heads, boxes, &c., 17s. to 18s. per cwt. ; wheels, gear, &c., 20s. to 23s. per cwt. ; pipes, pumps, &c., 14s. 6d. to 20s. per cwt. Rope, manilla, 74s. per cwt. Powder, blasting, 62s. 6d. per 100 lbs. Fuze, double tape, 13s. per doz. coils. Candles, sperm, 11s. 6d. per doz. lbs. Oil : Colza, 7s. per gal. ; olive, 8s. 6d. per gal. ; castor, 6s. 6d. per gal. Tallow, 28s. per cwt. Pick hilts, &c., 9s. to 15s. per doz. Shovels, American, 63s. to 75s. per doz. Leather : Colonial, 10d. to 1s. 3d. per lb. ; English, 2s. 3d. to 3s. per lb. Cotton waste, 9d. per lb. Iron, BBH, 16s. per cwt. Steel : Cast, 65s. per cwt. ; blister, 50s. per cwt.

MALDON.—Castings : Stamp-heads, 18s. to 20s. per cwt. Chains, common, $\frac{1}{8}$ in. to $\frac{3}{4}$ in., 44s. per cwt. Rope, manilla, 8 in., 74s. 6d. per cwt. Powder, Hall's, 75s. per 100 lbs. Fuze, Bickford's, 13s. per doz. coils. Candles : Tallow, 5d. per lb. ; sperm, 11 $\frac{1}{2}$ d. per lb. Oil : Colza, 6s. 9d. per gal. ; castor, 6s. 6d. per gal. Tallow : mutton and beef, 37s. 4d. per cwt. Quicksilver, 2s. 6d. per lb. Picks, hammer-headed, 10d. per lb. Pick hilts, 9s. to 12s. per doz. Shovels : Long-handled, 78s. per doz. ; English, short-handled, 66s. per doz. Leather, English hide, 2s. 6d. per lb. Cotton waste, 1s. per lb. Hemp, engine packing, £11 4s. per cwt. Iron, 16s. 6d. per cwt. Steel : Cast, 56s. per cwt. ; blister, 56s. per cwt.

ARARAT.—Castings : Fire-bars, truck-wheels, &c., 25s. per cwt. Rope, manilla, 7 in., 74s. 6d. per cwt. Powder, blasting, 74s. per cwt. Fuze, 14s. per doz. coils. Candles, stearine, 13s. per doz. lbs. Oil : Colza, 6s. 6d. per gal. ; olive, 7s. per gal. ; kerosene, 2s. 8d. per gal. Tallow, beef, 38s. per cwt. Picks, common driving, 42s. per doz. Pick handles (sheoak), 7s. 6d. per doz. Shovels, short handles, 60s. per doz. Leather, English butts, 2s. 8d. per lb. Hemp, for packing, £7 15s. per cwt. Iron, best wrought, 16s. 6d. per cwt. Steel, cast, 55s. per cwt.

BENDOC.—Oils : Castor, about 7s. 6d. per gal. ; kerosene, 3s. 6d. per gal. Quicksilver, 2s. 6d. per lb. Candles, sperm, 14s. per doz. lbs. Stamp-heads, shoes and bottoms, 30s. per cwt. Shovels (Collins') : Short-handled, 70s. per doz. ; long-handled, 96s. per doz. Picks (Collins') : Hammer-headed, 70s. per doz. ; double-ended, 78s. per doz. Pick handles, 12s. to 16s. per doz. Iron, 30s. per cwt. Steel, 60s. per cwt. Powder, blasting, 1s. per lb. Rope, manilla, 5 in., 78s. per cwt. ; ditto, 2 $\frac{1}{2}$ in., 78s. per cwt.

MINERALS OTHER THAN GOLD.

No. 50.

RETURN of the NUMBER of LEASES in force on the 31st December 1869 for the purpose of Mining for METALS AND MINERALS OTHER THAN GOLD.

Names of Metals and Minerals.						Number of Leases.	Area.		
							A.	R.	P.
Antimony	...	...	...	...	...	8	73	0	15
Copper	...	...	...	...	...	1	625	0	12
Copper, Tin, and Manganesc	...	...	...	...	...	1	100	1	30
Lignite	...	...	...	...	...	4	667	3	20
Slate ...	...	...	...	...	...	3	497	2	26
Silver	...	...	...	...	...	9	588	0	39
Tin ...	...	...	...	...	...	1	80	0	0
Totals						27	2,632	1	22

No. 51.

RETURN showing the NUMBER of LICENSES to SEARCH FOR METALS OR MINERALS OTHER THAN GOLD issued during the Year 1869.

Names of Metals or Minerals.						Number of Licenses.	Extent of Ground held under Licenses.		
							A.	R.	P.
Antimony	...	...	...	...	...	9	595	3	33
Copper and Ores of Copper	...	...	...	...	...	1	640	0	0
Copper and Galena	...	...	...	...	...	1	640	0	0
Galena	...	...	...	...	...	4	2,560	0	0
Tin Ore	...	...	...	...	...	5	3,200	0	0
Totals						20	7,635	3	33

NOTE.—Fees are charged for Searching Licenses in accordance with the following scale :—

	£	s.	d.
For an area exceeding 320 acres, but not exceeding 640 acres, per annum	10 0 0
" 160 " " 320 " "	5 0 0
" 80 " " 160 " "	2 10 0
" 64 " " 80 " "	1 5 0
And for any area not exceeding 64 acres " .. " "	1 0 0

(Vide Notice published in the Government Gazette of 2nd December 1864.)

No. 52.

RETURN of the NUMBER of MINERAL LEASES issued in the Year 1869 and the EXTENT of GROUND LEASED.

Names of Metals and Minerals.						Number of Leases.	Area.		
							A.	R.	P.
Slate ...	...	...	...	...	...	1	297	2	27
Copper, Tin, and Manganese	...	...	...	...	...	1	100	1	30
Lignite	...	...	...	...	...	1	20	2	5
Totals						3	418	2	22

METALLIFEROUS MINERALS, COAL, LIGNITE, CLAYS, SLATES,
AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

According to the returns made to the department, the following quantities have been raised :—

					Silver Ores.	Silver.	
					tons.	ozs.	dwt.
Previously—up to 31st December 1868	...	...	...	...	11,348	18,353	8
From 1st January to 31st December 1869	...	...	...	...	Nil	Nil	
Totals	...	...	...	...	11,348	18,353	8

The following statement of Exports has been received from the Customs Department :—

Year.					Silver Ores.		Silver.	
					tons	cwt.	ozs.	dwt.
1861	...	...	...	...	10	6	...	
1864	...	...	...	...	...	...	4,207	15
1865	...	...	...	...	...	...	4,954	0
1867	...	...	...	...	...	...	366	2
1868	...	...	...	...	...	...	5,604	9
1869	...	...	...	...	...	...	...
Totals	...	...	...	...	10	6	15,132	6

According to the Customs returns 5,976 ozs. (not the produce of Victoria) were exported during the year 1869. Some of the gold got from the mines of St. Arnaud and Wood's Point was largely mixed with silver, but the latter was not separated. The mixed metal fetched from £2 11s. per oz. upwards. Up to the 31st December 1869 forty-six leases of land had been granted for an aggregate area of 2,000 a. 3 r. 26 p. Of these twenty-one have been declared void for non-fulfilment of covenants, and sixteen have been surrendered, in order to obtain new leases. There were, therefore, only nine leases in force at the end of the year. The area comprised in these was 588 a. 0 r. 39 p., situated at St. Arnaud. Returns have been received from five of the leaseholders, stating the result of the year's operations to be "Nil;" and according to the report furnished by the warden's clerk at St. Arnaud, it appears that no silver ore was raised there during the year. On several of the leases works have been suspended for some time, but there is a prospect of renewed activity. It is believed that important discoveries of silver-lead ore have recently been made in Gippsland, on the Buchan and Murindate rivers. Four licenses, each for 640 acres, have been taken out to search for galena in these localities, and Mr. Peers, Mining Surveyor at Bairnsdale, in his report for the quarter ending the 31st December 1869, states as follows :—
"I have to announce the discovery of argentiferous galena in this district. This occurs in the country around Buchan, which is situated about fifty miles from Bairnsdale. The ores are found in well-defined lodes, extending continuously through the hills, and varying from three to six feet in thickness.
"I am informed that large quantities of the ore have been taken out and forwarded for assay, and that the result was highly satisfactory.
"The tract of country lying between the Snowy, Murindate, and Buchan rivers abounds in these minerals, and is worthy of the attention of prospectors and capitalists."
An apparently valuable discovery has been made in the neighborhood of Berlin, where a reef has been found containing masses of galena, with a large percentage of silver and a little gold.
These discoveries await development.

TIN.

The following statement of Exports has been received from the Customs Department :—

TIN ORE.					tons	cwt.
Previously—up to 31st December 1868	...	...	...	...	2,871	1
From 1st January to 31st December 1869	...	...	...	...	269	1
Total	...	...	...	...	3,140	2
TIN.					lbs.	
Previously—up to 31st December 1868	...	...	...	...	25,632	
From 1st January to 31st December 1869	...	...	...	...	1,568	
Total	...	...	...	...	27,200	

Mr. Warden Butler, of Beechworth, reports as follows :—

"Black sand (tin), raised in the Beechworth division during the year 1869 :—Eldorado, 200 tons ; Sebastopol, 20 tons ; Woolshed, 25 tons—Total, 245 tons. Quantity shipped, 220 tons. Value on the spot, £40 to £45 per ton. Value in England, £70 to £80 per ton. Quantity of tin smelted, 16 tons 12 cwt. Yield, 70 per cent. Price in Victoria, £120 per ton. Price in England, £130 per ton.

"Two leases have been applied for to search for tin (black sand) ; one near Mount Pilot, and the other on Clear Creek, near Eldorado, but in neither of those localities has a lode been found. Two parties are also prospecting for a lode in the neighborhood of Beechworth ; but although a thin leader has been found, it is not of sufficient value to warrant it being called a payable lode. The parties, however, are confident that they are in the vicinity of a valuable lode."

On the 31st December 1868 two tin-mining leases were in force, comprising an aggregate area of 158 a. o r. 16 p., situate near the heads of the river Bunyip in Gippsland. One of these leases was declared void during the year, and there remained one in force on the 31st December 1869 ; area 80 acres. The returns from the lessee are—Mineral raised during 1869 : "Nil." (That some confidence exists as to the ultimate success of tin mining in this locality may be inferred from the fact that the lessee whose lease was declared void, as here stated, has applied for a new lease of the same ground.)

Five licenses to search for tin ore—each over an area of 640 acres—were granted during the year, the localities being on the La Trobe River and the Yarra rivulet. The results have not been reported.

COPPER.

According to the returns received, the following quantities of Copper Ore have been raised :—

					tons.
Previously—up to 31st December 1868	...	...	...	...	855
From 1st January to 31st December 1869	...	...	...	...	Nil
Total	...	...	...	...	855

The following statement of Exports has been received from the Customs Department :—

					tons	cwt.
Previously—up to 31st December 1868	...	...	...	...	73	5
From 1st January to 31st December 1869 (ore)	...	...	...	...	0	10
Total	...	...	...	...	73	15

Two leases were in force on the 31st December 1869, viz. :—One for for 625 a. o r. 12 p., on the Thomson River, Gippsland ; the other for 100 a. 1 r. 30 p., near Linton ; but no copper ore has been raised during the year.

Two searching licenses were issued during the year, each for 640 acres, in the locality of Buchan, North Gippsland, where it is believed valuable deposits exist. Copper has been seen in small quantities in the Rodney Company's claim, Ballarat.

ANTIMONY.

There were eight leases in force on the 31st December 1869, for an aggregate area of 73 a. o r. 15 p., viz. :—One lease for 30 a. o r. 11 p. at Munster Gully, near Dunolly, and seven leases for a total of 43 a. o r. 4 p. at Costerfield.

Nine searching licenses have been issued during the year for an aggregate area of 595 a. 3 r. 33 p. in the localities of Ringwood and Warrandyte, about fifteen miles to the north-east of Melbourne.

According to returns received, the following quantities have been raised :—

ANTIMONY ORE.					tons	cwt.
Previously—up to 31st December 1868	...	...	...	...	3,662	15
From 1st January to 31st December 1869	...	...	...	...	709	0
Total	...	...	...	...	4,371	15

The following statement of Exports has been received from the Customs Department :—

					Antimony Ore.		Antimony.	
					tons	cwt.	tons	cwt.
Previously—up to 31st December 1868	...	...	...	...	2,858	17	...	...
From 1st January to 31st December 1869	...	...	...	...	417	3	38	16
Total	...	...	...	...	3,276	0	38	16

Of the quantity reported as having been raised during the year, 609 tons were obtained by the Costerfield Gold and Antimony Mining Company (Registered), viz. :—410 tons antimony ore, value £7 per ton, and 199 tons antimony tailings, value £4 per ton. The remaining quantity was obtained from a reef at Ringwood, and was estimated to contain about 65 per cent. of pure antimony.

At Dunolly no antimony was raised during the year, works having been suspended ; but it is reported that operations will be resumed immediately.

Very great importance is attached to the discoveries at Ringwood, and a large export of antimony during the year 1870 may be expected. The ore is chiefly the oxyd of antimony.

This ore occurs in numerous parts of the colony, but in the above-named localities only are the lodes being worked at present.

LEAD.

Argentiferous galena is found in many reefs in the colony ; and of late discoveries of what appear to be lead-veins have been made near Buchan. For particulars see notes under the head of "Silver."

COAL AND LIGNITES.

COAL.

According to returns received, 1,933 tons were raised up to the 31st December 1864, but since then only a few samples have been obtained.

On the 31st December 1868 there were thirteen leases in force, for an aggregate area of 7,528 a. 3 r. 19 p., but they have all been declared void.

In order to afford the leaseholders every opportunity for maturing their arrangements for testing and working the seams known to exist in localities near Cape Patterson, the Mining Department delayed for a considerable time to declare these leases void; but when there appeared to be no prospect of the lessees proceeding to work in accordance with the covenants of the leases, it was deemed necessary to throw open the ground to the public.

LIGNITES.

According to returns received, it appears that the following quantities have been raised :—

					tons.
Previously—up to 31st December 1868	...	...	...	...	235
From 1st January to 31st December 1869	...	...	...	...	230
Total	...	...	...	...	465

One new lease was granted during the year, and on the 31st December 1869 there were four leases in force, for an aggregate area of 667 a. 3 r. 20 p.

No searching licenses were issued during the year.

The secretary of the Brown Coal Company, Lal-lal (Limited), reports having raised 80 tons brown coal on one of the leases held by the company, and that on the other lease "No coal has been raised, but we have been boring to ascertain the extent and lie of the bed of coal; and we are now in correspondence with the Honorable the Chief Secretary for the permission of a gentleman in the Civil Service to act as our consulting engineer, when we shall be at once in active work."

A lease for a further area of 150 acres in the same locality has been applied for by the Brown Coal Company.

A seam of lignite has been found near Smeaton; and samples have been forwarded for analysis.

CLAYS.

According to returns, the following quantities of KAOLIN have been raised :—

					tons.
Previously—up to 31st December 1868	...	...	...	...	1,757
From 1st January to 31st December 1869	...	...	...	...	Nil
Total	...	...	...	...	1,757

No searching licenses were issued during the year; but it has been reported that a kind of clay similar to that from which the best kinds of Staffordshire ware are manufactured has been discovered in the Beaufort district.

FLAGS AND SLATES.

FLAGGING.

According to returns received, it appears that the following quantities have been raised :—

					tons	cwt.	square yards.
Previously—up to 31st December 1868	...	...	...	...	1,200	15½	57,500
From 1st January to 31st December 1869	...	...	...	...	68	0	21,000
Totals	...	...	...	...	1,268	15½	78,500

SLATES.

According to the returns received, it appears that the following quantities have been raised :—

					Slates.	tons.
Previously—up to 31st December 1868	...	...	...	...	1,000	160
From 1st January to 31st December 1869	...	...	...	...	Nil	Nil
Totals	...	...	...	...	1,000	160

During the year one new lease has been granted, for an area of 297 a. 2 r. 27 p., and one lease of 20 acres has been declared void. On the 31st December 1869 there were three leases in force, for an aggregate area of 497 a. 2 r. 26 p. Returns have been received for two of the leases.

Of the flagging raised in 1869, 68 tons were obtained from the Bald Hills Range, Pleasant Creek, and the remainder from quarries in the Castlemaine Division. At Bullengarook, near Gisborne, a company is actively at work opening up slate quarries. The owner states—"Ten men (mostly Welshmen and experts) that are working the quarry, have only made samples of slates of all sizes used here. Their time has been and will be for a short space longer occupied in making a very large face to the quarry, so that a large staff of men may be employed."

Mr. Warden Heron reports—"Good slates are to be obtained in some parts of the division of Fryer's Creek, but the expense of removal, owing to the nature of the country, prevents them from being obtained with profit."

MISCELLANEOUS MINERALS.

MANGANESE.

A lease was granted in December 1869 of 100 a. 1 r. 30 p. of land, about four miles from Linton, to a company formed to mine for copper, tin, and manganese. The lessees are reported to be actively at work sinking a shaft. Depth reached, 200 feet.

DIAMONDS.

The number reported to have been discovered is as follows :—

Previously—up to 31st December 1868	...	...	...	...	60
From 1st January to 31st December 1869	...	...	...	...	7
Total	...	...	...	...	67

Mr. Warden Butler, at Beechworth, reports :—"Diamonds.—Five have been found, viz., one at Woolshed, in Finn's claim ; three at Sebastopol, near the Cement Hill ; and one at Young's Creek. They were all of very fine color, but of small size, the largest being about one-half carat in weight. A systematic search for diamonds and precious stones has been commenced at the Woolshed by Mr. Hunt, and three of the diamonds referred to above were found by that gentleman."

The Mining Registrar at Sandhurst, in his report for the quarter ending the 30th September 1869, mentions the discovery of two diamonds at Huntly, but no information has been afforded as to the character of the deposit in which they were found.

RUBIES, ZIRCONS, SAPPHIRES, GARNETS, TOPAZ, ETC.

Mr. Warden Butler, at Beechworth, in his report for the year 1869, states as follows :—

"RUBY.—It was hitherto thought that this gem did not exist in this neighborhood, but Mr. Hunt has proved that it does, having found one at Sebastopol. It was of very small size, and was submitted to Mr. Crisp, of Melbourne, who pronounced it a pure ruby.

"ZIRCONS, SAPPHIRES, GARNETS, TOPAZ, ETC.—As is usual, a large number of these gems have been found by the miners working in the Woolshed Creek and its tributaries ; but, as they are of small size, they are consequently of no commercial value."

Gem stones of the above and other kinds have been found also at Blackwood, at Dry Creek, near Mansfield, and at Ballarat, but not as yet in any quantity of importance. A ruby the size of a small pea and of very good color was reported to have been found among the gravel of Studley Park, near Melbourne.

A good sapphire was lately found near Mansfield. The color was a fine deep blue, and the gem was without a flaw. The most of the so-called rubies are found when examined to be zircons. This stone (the true ruby) has been found in several localities where blue and green sapphires occur.

Office of Mines,
Melbourne, 4th March 1870.

R. BROUGH SMYTH,
Secretary for Mines.

APPENDICES.

APPENDIX A.

METALS (OTHER THAN GOLD), MINERALS, AND ORES IMPORTED INTO VICTORIA
DURING THE YEAR 1869.*(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)*

Article.	Quantity.	Value.	Article.	Quantity.	Value.
		£			£
Arsenic ...	Nil ...	Nil	Quartz ...	9 tons 12 cwt. ...	123
Black Sand ...	1 ton 1 cwt. ...	24	Quicksilver ...	1,191 bottles ...	8,881
Coal ...	135,436 tons ...	176,501	Silver ...	3,000 ozs. ...	600
Coke and Fuel ...	1,141½ tons ...	3,062	„ Ore... ..	31 pkgs. ...	2
Copper ...	27 tons 14 cwt. ...	2,111	Slates ...	2,871,257 No. ...	19,525
„ Ore ...	2 cwt. ...	1	Slate Slabs ...	12 No. ...	35
Diamonds ...	1 package ...	100	Sulphur ...	240 tons 10 cwt ...	3,128
Iron, Pig ...	5,229 tons 10 cwt. ...	22,686	Spelter ...	10 cwt. ...	13
Kerosene Shale ...	387 tons 6 cwt. ...	1,632	Tin ...	51 tons 13 cwt. ...	3,616
Lead ...	176 tons 10 cwt. ...	3,959	Zinc ...	390 tons 19 cwt. ...	11,538
„ Ore ...	5 cwt. ...	2			
„ Pig ...	811 tons 15 cwt. ...	18,064			
Metal, Yellow ...	308 tons 3 cwt. ...	23,663			
				Total ...	£ 299,266

APPENDIX B.

METALS (OTHER THAN GOLD), MINERALS, AND ORES EXPORTED FROM VICTORIA
DURING THE YEAR 1869.*(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)*

Article.	Quantity.	Value.	Article.	Quantity.	Value.
		£			£
Antimony ...	38 tons 16 cwt. ...	1,455	Quartz ...	16 cwt. ...	2
„ Ore ...	417 tons 3 cwt. ...	5,615	Quicksilver ...	192 bottles ...	1,667
Arsenic ...	Nil ...	Nil	Shell Limestone ...	Nil ...	Nil
Black Sand ...	269 tons 11 cwt. ...	17,566	Silver ...	5,976 ozs. ...	1,196
Coal ...	385 tons ...	431	Slates ...	5,500 No. ...	73
Coke and Fuel ...	17 tons 5 cwt. ...	100	Slate Slabs ...	7 No. ...	28
Copper ...	31 tons 11 cwt. ...	1,663	Spelter ...	139 tons 8 cwt. ...	2,345
„ Ore ...	10 cwt. ...	40	Sulphur ...	4 tons 11 cwt. ...	103
Iron, Pig ...	71 tons ...	425	Tin ...	6 tons 12 cwt. ...	711
Kaolin ...	Nil ...	Nil	Zinc ...	14 tons ...	500
Lead ...	2 tons ...	60			
„ Pig ...	3 tons ...	72			
Metal, Yellow ...	92 tons 11 cwt. ...	5,696			
				Total ...	£ 39,748

NOTE.—The figures in these tables are extracted from the returns just published by the Honorable the Commissioner of Trade and Customs. The statements include only raw materials. Thus pig-iron is included, but not bars, rods, plates, or castings; lead and lead ore, but not piping or sheet lead; and so in like manner the others. The returns published by the Customs Department necessarily include all.

The quantities exported include metals, &c., not the produce of Victoria.

APPENDIX C.

RETURN SHOWING THE QUANTITY AND VALUE OF KEROSENE OIL IMPORTED INTO
AND EXPORTED FROM THIS COLONY DURING THE YEAR 1869.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Kerosene Oil.	IMPORTED.		EXPORTED.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Duty paid <i>ex</i> ship	12,468 galls.	1,423		
Warehoused	76,695 cases, 31,908 boxes ...	175,032	447,478 gallons	48,223
	Total	£ 176,455		

APPENDIX D.

LABORATORY REPORT.

Upwards of one hundred specimens have been analytically examined during the year. Amongst those of the greatest interest are—

THE AURIFEROUS ORES.

The auriferous sulphides have received special notice, for upon the treatment of quartz containing these compounds depends the success or failure of a large number of mines in the colony, especially in such districts as Sandhurst, Blackwood, Steiglitz, Pleasant Creek, Stuartmill, and Northern Gippsland. In most of the mines of these and other districts the quartz below the water-level is found to be impregnated with such auriferous and argentiferous sulphides as iron pyrites, copper pyrites, arsenical pyrites, sulphide of antimony, zinc blende, galena, sulphide of bismuth, boulangerite (a sulphide of antimony and lead), and tetrahedrite (a sulphide of antimony, arsenic, copper, silver, zinc, and iron); there are some other rare sulphides which are of little or no economic importance. With the exception of the sulphide of bismuth, I found gold and silver in them all. The amount of gold and silver varies very much, even in samples taken from the same level in the same reef, those taken from the richest quartz invariably containing the most gold. Upon assay the purest iron pyrites gives the finest gold; the copper and arsenical pyrites, galena, and the more complex sulphides always give a gold button considerably alloyed with silver. From the careful examinations that have been made, it appears that the silver is not alloyed with the gold before assay, but is present as a sulphide, while the gold is as a metal in minute crystals, and in a state of great purity.

The following table gives some of the assays which have been made :—

Description of Mineral.	GOLD.			SILVER.			Description of Mineral.	GOLD.			SILVER.		
	Yield per Ton.			Yield per Ton.				Yield per Ton.			Yield per Ton.		
	ozs.	dwt.	grs.	ozs.	dwt.	grs.		ozs.	dwt.	grs.	ozs.	dwt.	grs.
1. Nearly pure iron pyrites, Gippsland	1	19	4	traces only			17. Arsenical pyrites, Blackwood	1	5	8	7	2	9
2. Iron pyrites, Yea ...	1	4	12	traces			18. Arsenical pyrites, Omeo	0	11	18	5	8	3
3. Iron pyrites, Welshpool...	0	6	12	traces			19. Arsenical pyrites, Donnelly's creek	0	10	0	3	5	6
4. Iron pyrites, Mt. Buller...	2	14	0	traces			20. Arsenical pyrites and galena, St. Arnaud	0	6	3	7	3	17
5. Magnetic pyrites, Mt. Buller	0	7	0	traces			21. Arsenical pyrites and galena, St. Arnaud	3	7	5	62	3	0
6. Iron pyrites, Pleasant creek	10	5	5	traces			22. Arsenical pyrites and galena, Bright	87	8	4	50	18	11
7. Iron pyrites from tailings, Pleasant creek	380	10	6	undetermined			23. Arsenical pyrites and galena, Landsborough	1	4	1	42	9	4
8. Iron pyrites, Ararat ...	11	15	5	undetermined			24. Pyrites, antimony, galena, boulangerite, intimate mixture, Blackwood	16	5	2	10	4	3
9. Iron pyrites, Bright ...	7	0	0	traces			25. Copper pyrites, Gippsland	traces			0	3	1
10. Iron pyrites, Beechworth	5	3	4	traces			26. Copper pyrites, Maldon...	45	10	10	traces		
11. Iron pyrites, Upper Yarra	traces			0	8	3	27. Sulphide of antimony, Upper Yarra	traces			0	15	10
12. Iron pyrites from a dyke, Gippsland	1	12	16	undetermined			28. Sulphide of antimony, Heathcote	5	0	0	undetermined		
13. Iron pyrites from tailings, McCullum's Creek	27	8	19	traces			29. Galena, Maryborough ...	traces			28	0	0
14. Iron pyrites, Wood's Point	16	6	16	2	4	3							
15. Arsenical pyrites, Sandhurst	0	11	6	10	17	2							
16. Arsenical pyrites, Maldon	1	3	11	6	18	0							

The assays given are from carefully picked specimens. In many mines all the sulphides mentioned occur intimately mixed.

No. 11, iron pyrites from the Upper Yarra, was a sample of *secondary* pyrites, coating fragments of quartz and cementing them together; this variety is seldom rich in either silver or gold. Many of the mines contain from two to twenty per cent. of these sulphides, and some even more; but at only a very limited number are any means adopted for saving and working them, though it is known to most miners that, in the ordinary methods of crushing and amalgamation, they cause a loss instead of a gain, by carrying into the tailings not only their own gold, but also a large percentage of the free gold in the quartz and of the mercury used to catch it. Various plans have been proposed to overcome this loss, and some of them are now in use with very fair success. In some districts, such as Pleasant Creek and Maldon, the plan of

burning the quartz before crushing is still in favor; but there is no doubt that it causes a very great loss of gold and mercury—much greater than if the quartz had been crushed unburnt. The quartz of these districts is highly charged with sulphides, which it is impossible to decompose wholly by burning in a kiln, especially those portions which are enclosed in the quartz; and these partly decomposed sulphides exert a much greater action on the mercury than the undecomposed ores. This is particularly marked when the ore contains any arsenical pyrites or sulphide of antimony. If some stone containing these ores is burnt and then triturated with mercury, the mercury soon becomes discolored and divided into minute globules, which are easily carried off by a stream of water and are most difficult to collect, and, when, collected, it is almost impossible to make them unite—even sodium amalgam sometimes fails to make them do so; that which does collect together has the appearance of a dirty amalgam, and is often collected as such, causing great disappointment after retorting. If the mercury contains gold amalgam, the division into these small particles takes place with great rapidity, and nearly all the gold is carried away if a slow stream of water is allowed to pass over the mixture. Several instances of great loss have been recorded during the year from this cause. In one case, near Pleasant Creek, the stone taken from the mine showed a large quantity of free gold in the quartz; it also contained a considerable percentage of rich iron and arsenical pyrites; it was burnt in a kiln, and then crushed and amalgamated in the usual manner; 300 ozs. of amalgam were obtained, which, when retorted, gave 3 ozs. of gold—the result of the action of the partly decomposed arsenical pyrites. There can be no doubt that this process of burning before crushing can only be used to advantage when the stone contains only a small percentage of pyrites and the cost of crushing is very high.

In treating the stone from reefs which contain a high percentage of pyrites, there can be little doubt that it would be more economical to use no mercury in connection with the battery, but to attach concentrating and classifying apparatus directly with the stampers; by doing so, the ore would be reduced to from five to twenty per cent. of its original weight, and it could then be roasted in a reverberatory furnace until free from arsenic and sulphur, and then amalgamated either in a Chilian mill or barrel, so insuring a much larger return of gold and very little loss of mercury. The residue might be collected, and from time to time worked for the silver it might contain, or by adding common salt to the charge in the reverberatory furnace, and amalgamating in presence of an acid solution of sulphate of copper, most of the silver could be saved with the gold; but this would only be profitable with sulphides rich in silver.

SILVER.

Besides the sulphides already mentioned, samples of chlorobromide of silver have been received from St. Arnaud—the occurrence seems to be just the same as that in the Pioneer mine—and argentiferous carbonates of copper and lead from Gippsland. The richest silver ores yet discovered in the colony are the fine-grained mixtures of iron, arsenical pyrites, and galena; some samples on assay give results of over 300 ozs. per ton. No pure sulphide of silver, as a distinct mineral, has yet been found in Victoria.

LEAD.

Samples of galena and carbonate of lead have been examined from Linton, Maryborough, Pleasant Creek, St. Arnaud, and Gippsland. From the first three localities the samples were massive and coarse-grained; at Pleasant Creek it is often associated in quartz-reefs with calcite. From St. Arnaud the samples were fine-grained, mixed intimately with pyrites. From Gippsland both fine and coarse grained have been received, associated with iron and copper pyrites, zinc blende, carbonates of copper, lead, lime, and baryta, and sulphate of baryta in a ferruginous gossan. Most of the Gippsland specimens have been taken from or near the surface, and the assays have varied from forty to seventy-five per cent. of lead; they all contain silver, but in very variable proportion.

A sample of metallic lead was received from Linton; it is said to come from near the bismuth reef.

COPPER.

Samples of native metallic copper have been examined from the silurian clay shales adjoining the reefs at Sebastopol and Egerton; the copper occurs in thin strings and arborescent forms, passing through and coating the joints and fissures of the clayey rock. It is probably due to the reduction of the salts of copper draining from the reefs, where it is derived from the copper pyrites undergoing decomposition; it is therefore not likely that these deposits will be found of any magnitude or economic value. Sulphide and carbonate of copper have been received from Gippsland and Omeo, associated with iron pyrites, galena, carbonates of lead, lime, and baryta. From the appearance of the gossan accompanying these ores, it is probable that they are derived from some of the numerous dykes which traverse the silurian rocks of those districts. It is possible that masses may be found like the Thomson River vein.

TIN.

Several samples of stream-tin (black sand) have been received from the Beechworth, Upper Yarra, and Gippsland districts, the assays ranging from three to sixty per cent., according to the manner in which the sand had been collected. The samples usually contain gold, and small sapphires, topazes, zircons, and magnetic and titaniferous iron. The most interesting sample received was a portion of a tin lode discovered near Beechworth: it consisted of a thin vein of black oxide of tin, with iron pyrites and plates of white mica passing through a fine-grained, very silicious granite; the felspar of the granite appears to be albite.

BISMUTH.

Metallic bismuth has been received from a quartz reef near Linton; carbonate and sulphide of bismuth occur in the same reef. The metal is quite pure.

ANTIMONY.

Samples have been received from the Upper Yarra and Gippsland of mixed sulphide and oxide of antimony; they contain an average of sixty-seven per cent. of antimony. Small samples of sulphide have been received, associated with other sulphides, from Blackwood and Ararat.

OTHER MINERALS.

Limestones.—A limestone, said to occur in quantity at Pleasant Creek, contains in 100 parts—

Carbonate of lime	...	...	...	...	...	...	66.0
" magnesia	...	...	...	...	...	...	4.2
" iron	...	...	...	...	...	...	5.0
Silica and clay	...	...	...	...	...	...	23.0
Water	...	...	...	...	...	...	2.1
							100.3

From the general appearance of the sample it seems to be a tertiary fresh-water limestone; its silica is insoluble.

Several magnesian limestones have been examined; they occur as deposits in many parts of the colony, and are very variable in composition, often enclosing a large percentage of sand.

The examination of the clays of the colony is now being carried on. No extensive bed of good fire-clay, except that at Lal-lal, has yet been discovered. Some infusible, very silicious clays occur on Jackson's Creek, near Sunbury; they are associated with excellent brick-clays.

Lignite.—A sample of lignite has been received from near Smeaton; the quality of the sample was not good, but it had been exposed to the action of the atmosphere for some time under unfavorable circumstances, which may account for this. The bed is reported of considerable thickness; it contained twenty per cent. of volatile matter and eight per cent. of carbon.

WATER.

The analysis of water from the most important lines of reefs and springs has been undertaken, and is now being carried on. The examinations so far show, as a rule, the waters from the reefs and veins in the silurian rocks to be highly charged with saline matters—chlorides of sodium and magnesium and sulphates of soda and magnesia preponderating; while the spring waters which flow from the same rocks, at a distance from the quartz reefs and veins, as a rule contain only small quantities of these salts and large quantities of the carbonates of iron, lime, and magnesia.

The following are some of the analyses made during the year. In these analyses the acids and bases are associated, as they would be of little or no interest, and incomprehensible to the mining population, for whom they have been made, had the acids and bases been placed separately. It is proposed to publish them in both ways when the work has been brought nearer completion.

No. 1 is from the Catherine Reef, Eaglehawk, Sandhurst.

No. 2 is from the Rising Star mine, St. Arnaud.

No. 3 is from the Great Extended Eagle mine, Eaglehawk, Sandhurst.

Water Analyses.

	(1.)	(2.)	(3.)
Carbonate of iron ...	0'10	1'58	0'83
" lime ...	0'32	3'33	2'15
" magnesia ...	3'21	4'21	4'50
Chloride of sodium ...	60'74	46'34	60'59
" magnesium ...	10'31	10'12	12'09
" potassium ...	1'01	trace	trace
Sulphate of lime ...	5'40	2'63	5'12
" magnesia ...	14'22	16'11	11'04
" soda ...	traces	10'31	traces
" potash ...	0'71	1'24	2'30
" alumina ...	4'66	2'11	2'49
Manganese ...	traces	—	traces
Phosphoric acid ...	traces	—	—
Silica ...	1'03	2'79	0'26
	101'71	100'77	101'37

GEM-STONES.

Packets containing hundreds of small stones have been received and examined, but with the exception of one or two sapphires and a few topazes they have contained nothing of value; the majority have been quartz pebbles, topazes, opaque sapphires (blue, red, and white), small zircons, and tourmaline. These have been received from Gippsland, Omeo, Beechworth, Majoree, Maryborough, and Blackwood.

J. COSMO NEWBERY, B. Sc., Analyst.

APPENDIX E.

CONTRIBUTIONS TO THE MINERALOGY OF VICTORIA,

By GEORGE H. F. ULRICH, F.G.S.

It has frequently been noticed by persons acquainted with other mining countries that our colony, though well-explored and studded with well-developed mines, is very poor in minerals, both as regards variety and beauty of crystallized specimens. We can certainly not complain of the quantity and intrinsic value of the principal minerals we possess, considering that our quartz reefs and tertiary drifts furnish the most valuable of metals in greatest abundance—(an authority like Sir Roderick Murchison proving Victoria to be the richest gold-mining country in the world—see "Siluria," 4th edition)—and that the most precious of gem-stones—*diamond* and *ruby*—have already been discovered, and the number of new varieties of other known species is steadily on the increase. Victoria has indeed received, so to speak, the very essence of mineral riches; yet, in looking, for instance, at the inconsiderable number of different mineral species—about twenty—hitherto recognized in the hundreds of auriferous lodes opened throughout the country, and comparing this result with the many dozens of fine minerals occurring in the ore-lodes of Cornwall, Saxony, the Hartz, &c., the reward for mineralogical research appears rather a meagre one, and any new discovery is therefore the more eagerly welcomed and deserving of record.

Finding some pleasure in the study of this branch of science, I gave, in the geological essay prepared for the Inter-colonial Exhibition of 1867, a condensed description of the mineral species up to that time found in Victoria; and as a number of new finds and facts have come under my notice since that publication, it might prove both of scientific and general interest if I record progress in the following pages. Not only have species *quite new to Victoria* to be noticed, but also several *quite new to science*, and of those already known, new localities, new interesting forms of occurrence, &c., deserve mention. My enumeration, I am conscious however, will even fall short of the mark, for, through the untiring energy of the Secretary for Mines, Mr. Brough Smyth, in securing the saving, transmission, and examination of specimens from all parts of the colony, the list of new species and varieties is nearly daily augmented.

Having myself no laboratory at command, I am specially indebted to my friend Mr. Cosmo Newbery for his assistance in furnishing me with the chemical analyses of a number of the species described.

For crystallographers I have drawn correct figures of some of our interesting crystal rarities, and given in the context accurate measurements of angles for the determination of the indices of the planes of some of the new crystals.

As regards the arrangement of the species in the description, no system has been followed, except that of grouping together the native metals and metallic minerals—the hydrous and anhydrous oxides—the salts of special acids—gem-stones—silicates—sulphates, and carbonates.

MALDONITE OR BISMUTHIC GOLD.

Some time ago my attention was directed by Mr. Salter, the manager of the Alliance Company, Nuggety Reef, Maldon, to small irregular specks of a rare gold-ore that occurs associated with gold, generally in the neighborhood of, and sometimes several inches deep in, the granite veins that traverse this interesting reef. The miners call this ore "black gold," on account of the mostly dark-looking specks producing globules of bright gold by the usual burning or roasting of the quartz. Of the small quantity—a few implanted specks—available for examination, I was only able to make some blowpipe experiments; but these were sufficient to prove the ore to be an alloy of bismuth and gold. It fuses very easily on charcoal, and whilst imparting to the latter the characteristic yellow coating of bismuth, turns gradually to a bright gold bead. Sulphur, tellurium, &c., which, from analogy, I supposed to be present in the ore, are entirely absent. From a number of specimens, lately received through the kindness of Mr. Salter, another small quantity of the ore was

obtained that sufficed Mr. Cosmo Newbery for a qualitative analysis and an assay of hardly half a grain. The former of these confirmed my blowpipe determination, and the latter proved the composition of the ore to be $Au\ 64.5$, $Bi\ 35.5$, conforming closely to the chemical formula $Au^2 Bi$. Other characteristics of the mineral are:—hardness, 1.5–2.0; malleable; very sectile; very bright metallic lustre and pinkish silver-white color when freshly broken, but tarnishing gradually on exposure, first to a dull copper color, and ultimately to black. Crystals have not been observed as yet; cleavage apparently cubical. Two trials to determine its specific gravity, made with two specks weighing considerably less than one grain each, produced, singularly enough, the one only 8.2, the other 9.7, though, according to the above composition of the ore, it should have been considerably higher. In order to find the reason of this discrepancy, the two test-samples were dissolved in *aqua regia*, when it was discovered that each contained inside a fine skeleton of an earthy mineral, resembling felspar under the microscope, though no trace of this could be detected previous to the trials. This ore, as a natural product, is quite new to science—the *bismuthaurite* described by Shepard being a furnace product—and it is therefore proposed to name it “*Maldonite*,” after the locality of occurrence. Mr. Salter states that it was formerly found—in the upper workings of the Alliance Company’s mine—in greater quantity and in larger pieces, and it is therefore not improbable that it might also occur in a similar manner in the neighboring ground of the Speculation Company, perhaps in crystallized pieces, and affording sufficient material for a quantitative analysis. It was no doubt the source of the former frequent admixtures of bismuth in the gold from the Nuggety Reef.

TETRAHEDRITE.

On examining several fine gold-quartz specimens from the Albion Company’s mine, Steiglitz, kindly shown to me by Mr. Davidson, of Geelong, I discovered bright, grey metallic specks, and in a hollow of the quartz also a perfect tetrahedral crystal of an ore, that, before the blowpipe on charcoal and in the glass tube, proved to be *Tetrahedrite*, giving reactions for S, Sb, As, Cu, Fe, and Zn, and which may also contain Ag.

This ore is quite new to Victoria. It is associated with *gold*, *iron pyrites*, *stibnite*, and, though rarely, *bourbonite*. On breaking one of the specimens, several smaller crystals were afterwards discovered in hollows of the quartz, coated by *pholerite*. They show a fine iridescent tarnish and brilliant lustre, and are very rich in planes. The solitary perfect crystal, of which a drawing (Fig. 1) is annexed, exhibits those of the cube *h*, octahedron *o*, rhombic-dodecahedron *d*, trapezohedron *t*, and of the rather rare hexakisoctahedron *m*.

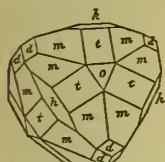


FIG. 1.

BOURNONITE.

This ore has been known since several years to occur very rarely in some quartz reefs of Ballarat, St. Arnaud, and Heathcote; we can now, however, add to these another locality, viz., the Albion Reef, Steiglitz, in which it is apparently found in some abundance. This is shown by two lots of specimens from the Albion Company’s mine received at the former Geological Survey Office for examination—one sent by the mining surveyor, the other by the manager of the mine. The ore occurs more or less thickly dispersed through the quartz in small patches, crystalline grains, and minute crystals, which latter are generally coated by *pholerite*. A crystal nearly perfect at both ends, though only $1\frac{1}{2}$ lines in length, was found in a small hollow, and shows the form given in Figs. 2 *a* and *b*. The mineral is associated with *gold*, light-brown *zinc blende*, *iron pyrites*, tufts of acicular crystals of *stibnite*, and rarely *tetrahedrite*, from which latter, if not crystallized, it can hardly be distinguished by outward appearance; however its behaviour before the blowpipe on charcoal demonstrates clearly the presence in it of lead, which is absent in the other, and thus affords an easy mode of recognition.

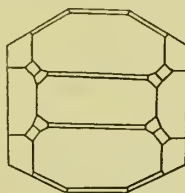


FIG. 2 *a*.



FIG. 2 *b*.

NATIVE BISMUTH, BISMUTH-GLANCE, AND BISMUTHITE.

These three minerals, of which the second is rather rare and quite new to the colony, were lately discovered in a quartz reef at Linton, Ballarat district. Mr. C. Newbery first examined and analyzed specimens, and made their composition known in the *Ballarat Star*. On the specimens from the reef that came under my notice, I found *native Bismuth* and *Bismuth-glance* associated with *gold*, and *iron* and *copper pyrites*. The first formed small irregular specks, the *Bismuth-glance* scaly and slender prismatic crystals of fibrous or foliated structure, and showing an iridescent tarnish—some very similar in appearance to sulphide of antimony. The *Bismuthite* appears to be rather scarce, and may also, on account of its greyish color and earthy aspect, be easily overlooked. Mr. Newbery discovered it only after pounding some quantity of the reef-stone. A fine sample of this mineral was lately presented to me by Mr. Ed. Dunn, an ardent collector of mineral specimens, and discoverer besides this of many other interesting novelties in this line in the Beechworth district. It occurs in the gold-drift near Beechworth, in roundish nodular grains of greyish or yellowish-white color; in fact, it is in all respects similar to that I discovered several years ago in the washdirt of Ramshorn gully, Sandy Creek, Tarrangower. Mr. Dunn found pieces up to half an ounce in weight with a centre of metallic bismuth, and also in the same deposit small pieces of *native Bismuth*, one with angular fragments of quartz attached: all which occurrences lead to the conclusion that the *carbonate* is a product of chemical change of the native metal, and that the latter, or perhaps both minerals, have originally been derived from a quartz reef in the neighborhood.

NATIVE COPPER.

This metal has been found at three new localities:—

1. At Clunes, in the older pliocene gold-drift of the Clunes Company, in small specks and nuggety water-worn pieces, evidently like the gold derived from some lode hidden beneath the basaltic lava that occupies a vast surface area of that district.
2. In the ground of the Rodney Gold Mining Company, between Ballarat and Creswick, at a depth of 185 feet from the surface in the reef drive, 35 feet beneath the gold-drift. It occurs in the line of contact of alternating beds of bluish soft slate and sandstone, but attached to the former, in filiform and arborescent shapes—a mode of occurrence very similar to that I described from Wilson’s Reef, St. Arnaud.
3. In the prospecting drives of the Flying Scud Gold Mining Company, Egerton, in a manner quite similar to that just mentioned.

STIBNITE (SULPHIDE OF ANTIMONY).

To judge from the numerous new discoveries of this ore since the last two years, it no doubt ranks next to arsenical and iron pyrites as the most frequent companion of gold in our quartz reefs, though it occurs also in separate veins not associated with auriferous quartz. The upper silurian rocks are however, as far as experience goes, richer in the ore than the lower silurian. Its market value having since some time considerably risen, the working of the separate veins and patches, or the saving of the ore occurring in auriferous quartz reefs, which goes on concurrently with that of the gold, has now become a source of considerable income to small parties of miners and several mining companies, especially in the Heathcote Mining District.

As the more important amongst the new discoveries, have to be mentioned strong veins of the ore at Munster Gully (Dunolly); Donovan’s Creek; Upper Yarra; Yea, and Sunbury; and detailed descriptions of the latter, as also of the veins of Costerfield (Heathcote district), by Mr. Th. Couchman, are given in Mr. Brough Smyth’s work, *The Goldfields and Mineral Districts of Victoria*.

A discovery of later date are two strong veins of the ore—not associated with auriferous quartz—at Ringwood, about fifteen miles from Melbourne on the road to Lillydale. From inspection I can state about these as follows:—The first and largest vein—discovered by accident through the breaking of road metal from the top of a rise, a few chains west of the road—is from 2 to 4 feet wide, strikes N. 7° W., and dips westerly at angles varying between 60 and 70°—these data being the means in the line of the workings, which have an extent of about two chains. In its special behaviour the vein, like its congeners all over the world, is very uncertain and irregular, *i.e.*, especially liable to turn and form patches, which are, however, always connected by a strong ferruginous casing or mullocky band, carrying *antimonial ochre* in veins, and finely disseminated. At the bottom of one of the shafts, 31 feet deep, it strikes, for instance, N. 7° E., and dips at the shaft 65° west, some 10 feet farther south 70° W., whilst its thickness of nearly 4 feet of solid ore, some distance up the shaft, has dwindled down to a few inches—the walls of the lode, from 1½ to 3 feet apart, being filled up with mullock, enclosing, besides the narrow vein, nodular pieces of the ore, and *antimonial ochre* in thin strings and small patches. A few thin leaders of ore join here the main vein from the east.

The second vein, discovered by Mr. Finnie, crosses the Melbourne road at an oblique angle about three and a half chains distant from the workings on the former vein, the southern continuation of which it ought to intersect close to the road. It strikes in the workings on north side of road N. 30° E., on south side N. 35° E., and dips easterly at angles varying from 60° to 70°. As far as at present opened, by a trench and a short drive in a shallow shaft, it is from 1 to 2 feet thick, and appears to be even more irregular in its behaviour than the first vein, having as yet only furnished its ore product from small disconnected strings, and as a number of lumps—some from close to the surface; the remaining portion of it consisting of ferruginous mullock, rich in *antimonial ochre*.

Both veins traverse thick-bedded, yellow, in places highly ferruginous, upper silurian sandstone, which strikes N. 20° E., and dips easterly at an angle of 64°.

Speaking generally about *Stibnite*, it is a singular feature, considering the more and more proved abundance of the ore, and in comparison to other mining countries, that crystallized specimens are as scarce as ever. As new in this respect, I can only mention that groups of small acicular crystals have been observed at Costerfield—as a great rarity—partly in hollows within the mass of the ore, partly on the faces of joints in the walls of the lode.

MOLYBDENITE.

Of this mineral four new places of occurrence have to be mentioned, *viz.*: Yea, the Bradford Lead and Nuggety Range (Maldon) and Mount Moliagul. At Yea, it is found in a coarsely crystalline variety of granite, agreeing, as regards composition, with that called "*greisen*" in Germany—a mixture of only mica and quartz, felspar being absent. More or less regular hexagonal plates of the ore, some nearly 1 inch in diameter, are in great abundance irregularly distributed through this rock, and, curiously enough, in such a manner that they generally lie between the mica partings of the quartz fragments, and are seldom embedded by themselves in the solid quartz.

At the Bradford Lead, Maldon, the mineral occurs very sparingly; but the specimens hitherto found are rather interesting, consisting of pebbles and crystals of *cairngorm* and *rock crystal*, in which spangles and small hexagonal plates of *Molybdenite* lie embedded—an occurrence rarely recorded.

In the Nuggety Range (top of high hill above the Maldon Cemetery) it was lately found, by Mr. Rule, dispersed through a quartz vein traversing granite. It occurs in hexagonal plates, up to half an inch in diameter, and is associated with *orthoclase*, *schorl*, *mica*, and *wolfram*. Fine druses of *rock crystal* and *cairngorm* are also not rare in the vein.

The fourth new discovery of *Molybdenite* was made a short time ago, in a quartz reef running across the slope of Mount Moliagul. It occurs in small plates disseminated through the quartz, and forms also drusy accumulations of imperfect scaly crystals in open joints of the reef. It has apparently undergone much decomposition, as the faces of the joints in the reef are mostly covered with narrow slits and hollows—partly empty, partly filled with fine quartz sand and clay—that evidently have originated through the removal of *Molybdenite* crystals. The joints of the quartz are, as a further evidence of the decomposition of the ore, coated with

MOLYBDIC OCHRE.

A mineral new to Victoria. It forms small light-yellow tufts and nobs, which, by aid of the magnifying glass, prove to be composed of a dense accumulation of fine, silky, radiating needles, not unlike the manner in which malachite is often found. This mode of occurrence of the mineral in capillary crystallizations appears to be very rare. In Nicol's, Brooke and Miller's, and other mineralogies consulted, it is described as a yellow, earthy substance or incrustation, and in this latter form it actually occurs, though sparingly, in hollows of molybdenite specimens from Yea. Only in the new edition of Dana's *Mineralogy*, 1868, it is mentioned as occurring in the capillary crystalline form.

CERVANTITE (ANTIMONIAL OCHRE).

This mineral being always associated with the *sulphide of antimony* (through the decomposition of which it has no doubt arisen) above the permanent water-level of the respective lodes, it is likewise found at all those new localities mentioned for the latter. Though sometimes filling, as a yellow powder, cavities in the *sulphide* and gangue, it is mostly dense and hard, generally isabella-yellow, sometimes greenish-yellow and yellowish-white, and shows often, especially the crust round nuclei of *stibnite*, concentric rings varying in the different shades of color just mentioned. In the veins at Ringwood, it occurs in places in thick, massive, seam-like patches, sometimes with a laminated structure, rendering it hardly distinguishable from the mullocky gangue, occupying portions of the lodes. Dense pieces show frequently a porphyritic aspect, caused by small perfect quartz crystals being more or less thickly distributed through the mass. Specimens with acicular crystallizations, from Costerfield, have come under my notice as great rarities.

CHROME OCHRE.

Specimens of this mineral, similar to those occurring at Heathcote and Strathloddon, have been kindly shown to me by Mr. Couchman, Chief Mining Surveyor, as from the Great Western diggings, Pleasant Creek. It might be described as a rather soapy clay, colored dark pistachio-green by sesquioxide of chromium, which has no doubt resulted from the decomposition of "*chromic iron*," of which black grains, rather friable and devoid of lustre, can be recognized scantily distributed through the clay.

WAD, ASBOLITE (EARTHY COBALT).

In my former description of Victorian mineral species (Exhibition Essays, 1867) I was obliged, from their hardness and general resemblance, to place under the head of "*Psilomelane*" the varieties of ferruginous black manganese-ore occurring so abundantly on the goldfields and in other parts of the colony, although the compositions of the specimens analyzed, varied, not only greatly amongst themselves, but differed still more from those recorded for *psilomelane* from European and other localities. The great amount of oxide of iron contained in the Victorian specimens appeared to be their chief distinguishing characteristic, and I therefore proposed the name of *black ferro-manganese-ore* for them. Seeing, however, in the recent edition of Dana's *Mineralogy*, that ores of a hardness varying from 0.5 to 6, and of the most diversified compositions, are placed under the general head of "*Wad*" as being no defined mineral species, I think the Victorian specimens formerly analyzed would, with perhaps one exception, which agrees pretty closely with true *psilomelane* in composition, come under this head also; whilst an ore of this class since found by Mr. Verdon, at Home Creek, Sloane's Punt, Goulburn River, would belong to the sub-species *Asbolite* (*black Earthy Cobalt*), as it contains, according to Mr. Newbery's analysis, 14 per cent. of oxide of cobalt. It occurs in irregular strings and seams of nodular, mammillated masses in the upper silurian shales, and forms also botryoidal coatings on the faces of joints in the beds.

BROOKITE (ARKANSITE?).

Mr. Murray, of the former Geological Survey, forwarded some time ago a number of specimens from a quartz reef in the Steiglitz Mining District, which contain a hard, brown, or chocolate-colored opaque mineral, forming thin veins or layers in joints of the quartz. The faces of these layers are irregularly striated, and show a metallic adamantine lustre, and the powdered mineral is of light-yellow color, and proves before the blowpipe and by qualitative analysis, to consist of pure titanitic acid. As there are three minerals known to be composed solely of this acid, viz., *rutile*, *brookite*, and *anatase*, each of distinctive crystalline form, it might, in default of crystals of the mineral under notice, be considered rather hazardous to term it *Brookite*. In justification of this course I can, however, plead that I have seen in several European mineral collections undoubted specimens of *brookite*, in all particulars resembling the Steiglitz mineral, none, however, of *rutile* and *anatase* that were similar to it.

On some of the specimens places can be noticed, where the brown color of the mineral is changed to greyish-black with quite a metallic lustre, and that afford a greyish-black streak-powder. As these portions also consist of titanitic acid, as proved by experiment, they would, according to Dana's description, agree with the variety of *brookite* occurring in Arkansas and other American States, and named by Shepard "*Arkansite*."

Small, thin, plate-like particles of *Brookite*, in color, striation, lustre, &c., exactly resembling the Steiglitz mineral, occur also in the gold-drift of the Mount Greenock Lead, associated with *sapphire*, *topaz*, *zircon*, &c.

CASSITERITE (TIN-ORE).

Although this valuable ore has long been known to occur in workable quantity in the state of more or less fine sand, with occasional larger pieces—so-called "*stream-tin*"—in the gold-drifts of many of our goldfields, more especially Beechworth, still all research and prospecting to find it in its rock matrix proved unsuccessful till, since last year, three such interesting discoveries were made at the last-named goldfield. The credit for the first, made about ten months ago, belongs to Mr. Ed. Dunn, who systematically traced the *stream-tin* of a gully situated about five miles S.W. of Beechworth, to have been derived from a peculiar brecciated porphyritic dyke, traversing granite. The dyke stone—intensely hard and tough—is composed of *chalcedonic quartz*, *felspar crystals*, and sometimes *mica*, and the *tin-ore* occurs distributed through it in small crystalline grains; other associated minerals are *iron pyrites*, and rarely *fluor-spar*. The dyke varies very much in character and width, and, on account of the hardness of the rock, has as yet not been properly prospected.

The second discovery was effected by Mr. Hensley, tinsmelter, at a place situated about four miles from Beechworth, in a south-westerly direction; and Mr. Dunn describes it as made in a strong surface-blow of cellular *quartz*, containing abundance of white *mica* in plumose and sometimes stellate aggregations, and lying in a large dyke of *eurite*, that traverses rather coarse-grained granite. A shaft, sunk by Mr. Dunn's advice at the end of the quartz-blow, disclosed the following:—The mass of quartz soon decreased in thickness and split into veins, whilst the stuff surrounding these consisted in places almost entirely of fine mica, but turned gradually to a reddish soft *eurite*. The quartz veins in this rock appear like lenticular patches, are full of *felspar*, and where their underlying faces rest upon the *eurite*, the *tin-ore* occurs in small crystals and grains, each one embedded in a felspar crystal. The quartz itself is very cellular, small crystals of it studding the inner walls of the cells, whilst occasional larger cavities are filled with a micaceous mud, enveloping drusy pieces and perfect crystals, curiously developed. On account of a hard bar of rock, dipping to the east, having been struck in the bottom of the shaft, the sinking of the latter, as yet but twenty feet deep, has been suspended at present; but it ought certainly to be resumed, and the dyke more extensively explored, considering, besides its resemblance to a real *lode*, the favorable feature of the tin-ore occurring disseminated both through the *quartz* and *eurite*.

The third discovery of *Tin-ore* in rock matrix, which has created some excitement in the district, was likewise made in a very fine-grained (*euritic*) granite dyke traversing common granite, about three-quarters of a mile N.W. of Beechworth. According to Mr. Dunn, this dyke strikes about N. 15° W., and can be traced for a considerable distance on the surface, though it is very irregular in its course, in places disappearing in the granite and suddenly cropping out again. A casing, or other defined line of demarcation between it and the granite is entirely absent; the texture of the latter simply changes suddenly from coarse to fine-grained, and the *mica* disappears. Both kinds of rock are traversed by numerous thin (*quartz*) veins in such a manner as to impart the idea of some strong force having shattered their mass in all directions, the resulting cracks and joints being now represented by the veins. The *tin-ore* occurs in these veins both in the granite and dyke rock, but principally in the portions traversing the latter, and those appear to be the richest that cross the line of dyke at an oblique angle (N. 53° W.). It sits in small, often highly modified crystals—single and compound—on thin layers of quartz coating the walls of the veins, the interspaces being generally occupied by a very soft, scaly, greenish mineral, very much resembling *talc*, but conforming in its blowpipe reactions most to *pyrophyllite*. As associated ores—though most prevalent in the veins traversing the granite—have as yet been observed *copper*, *iron* and *arsenical pyrites*, and black powdery *sulphide of copper*. About two chains from the prospecting shaft (which is 26 feet deep at present), *garnets* of a reddish-wine yellow color have been found in some abundance.

Although it is as yet doubtful whether any of the three *tin-ore* occurrences just described, and of which the last one reminds much of the "*netzgänge*"—net-lodes of tin-ore of Altenberg, Saxony—will, on further exploration, prove of value, so as to pay working on a large scale, still—be the result favorable or otherwise—the established fact of this new mode of occurrence of the ore recommends at any rate a systematic examination of all the rich tin-bearing creeks of the district, and especially a sharp look-out for *eurite* and other dykes traversing the granite and silurian rocks, near the boundary of the latter: for it is highly probable, if not quite certain, that the *stream-tin* of all these creeks has similar sources as those described, and payable, perhaps rich, ones may be amongst the number.

MAGNETITE (MAGNETIC IRON-ORE).

Regarding this mineral, it has to be mentioned as new that Mr. Norman Taylor, field geologist, found minute octahedrons of it abundantly distributed through the basalt of a hill near Dr. Baynton's station (Geological Survey $\frac{1}{4}$ sheet, 51 S.W.). Bars cut from the rock were observed to possess perfect magnetic polarity. Grains of the mineral of a rusty-brown color, varying in size from dust to that of a pea, occur also abundantly in the drift of gullies running off the basalt of Horse Hill, same neighborhood.

WOLFRAM (TUNGSTATE OF IRON).

Fine specimens of this mineral, of more massive, coarsely-columnar structure than those known from Sandy Creek, Maldon, have lately been found in a quartz reef near Ballarat. Hollows in the quartz show sometimes crystals of it that are of a rather perplexing monoclinic-like development.

It has also quite recently been discovered by Mr. O. R. Rule in the quartz vein traversing granite in the Nuggety Range, Maldon, mentioned under *molybdenite*. It occurs in small tabular and columnar pieces embedded in quartz, associated with *scheelite*, *molybdenite*, *schorl*, *felspar*, &c.

SCHEELITE (TUNGSTATE OF LIME).

This mineral—quite new to Victoria—has been found at two different localities in the Maldon district. Our Public Museum collection of colonial minerals possesses one rather imperfect crystal, one-sixth inch in diameter, representing a somewhat compressed tetragonal octahedron. This crystal was quite by accident discovered by Mr. Newbery in a broken crystal of *smoky quartz* from the Bradford Lead. Though in color quite similar to the matrix, its faint outline, somewhat higher lustre on one exposed face, and being scratched by a knife, attracted attention, and on the quartz crystal being carefully broken, that of *Scheelite* was obtained. A small portion broken off during this operation served for determining its composition as *tungstate of lime*. The mineral is no doubt rare at the place, and may also, on account of its very close resemblance to its matrix—*smoky quartz*—be easily overlooked. Careful examination of a great number of similar quartz crystals and pebbles from the lead failed to disclose another specimen.

The second locality where this mineral occurs is in the quartz reef in the Nuggety Range above mentioned. I identified it in a specimen—kindly shown me by the discoverer, Mr. Rule—which contains it implanted in quartz in crystalline grains, and as one rather imperfect crystal of a quarter inch in diameter, closely associated with rather decomposed-looking *wolfram*—a feature affording a clue to its origin.

Considering that the drainage from the Nuggety Range, on which the above quartz reef occurs, is direct into the valley of the *Bradford Lead*, and that there is evidence of a formerly existing drift branch of same age as that of the lead, viz., *older pliocene*—leading from the range into the lead—having been removed by denudation, it is not at all improbable that those drift pebbles and crystals, enclosing *molybdenite* and *scheelite*, occurring in the lower portion of the lead, have originally been derived from this quartz reef.

VIVIANITE (PHOSPHATE OF IRON).

The earthy variety of this mineral—*blue iron earth*—has long been known from the basalt of Ballarat, from Point Addis, Geelong, and from several of the guano islands of Bass's Straits; but in a finely crystallized state it has only come under notice above two years ago, when Mr. W. Jahn, mining surveyor, sent specimens for determination to the Geological Survey Office, which he found in a soft, yellow, silurian sandstone from a digger's shaft on the Nicholson River, near Sarsfield, Gippsland. The mineral is of a light to dark sky-blue color, translucent bottle-green, but seems to become somewhat opaque on exposure to light. The specimens forwarded by Mr. Jahn, of which the best are now in the collection of our National Museum, show it to occur in veins from the size of a thread to about half an inch in width, also as crystals from one-eighth to above one inch in length, in cracks or open joints of the sandstone. The form of these crystals, shown in Fig. 3, is the common one observed on vivianite from Bodenmais and other places, the plane marked *P* being that, parallel to which a very perfect mica-like cleavage exists, whilst planes *M* and *Z* indicate this cleavage by longitudinal striæ. All the specimens show, associated with the *Vivianite* and in places covering it, small dull-yellow to dark greyish-brown wart-like nobs that consist of carbonate of iron—*sphaerosiderite*—and may perhaps be products of decomposition of the *Vivianite*.

During the recent arrangement of the collection of colonial minerals at the National Museum, two specimens of *Vivianite* were noticed that, as regards size and perfection of the crystals, especially on one specimen, are hardly surpassed by any I have seen in European mineral collections. These specimens—taken to be *oblique green mica*, with which they have indeed great resemblance—have been presented to the museum by Mr. H. Stone, mining surveyor, who obtained them, according to the *Mining Statistics* of December 1860 (prepared by Mr. R. Brough Smyth, Secretary for Mines), on the Buckland River, in the cutting for a water-race. The largest of the crystals is about one inch and a half in length and three-quarters inch thick, and is represented in Fig. 4; it shows, in addition to the same prismatic planes of the Gippsland crystal, two pairs of rare terminal ones, which require to be measured. The color of the crystals is a deep bluish-green seen perpendicularly to the cleavage plane, and impure blue in any other direction. It is a singular fact that these specimens of *Vivianite* are, like the Gippsland ones, also associated with small nobs of *sphaerosiderite*, and that they occur in a similar soft, yellow sandstone. Indeed the resemblance of the specimens from both localities is so close that anyone unacquainted with the facts would unhesitatingly pronounce them as coming from the same place.



FIG. 3.

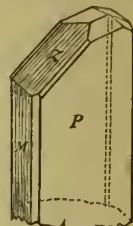


FIG. 4.

PHOSPHORITE.

On examining a reddish-brown basaltic clay (decomposed older basalt) from Bruthen Creek, Gippsland, it was found to contain nodular concretions of a whitish mineral substance, colored in places by blue and green *carbonate of copper*, and that proved to be a rather impure *Phosphorite*, according to the following results of a quantitative analysis by Mr. Cosmo Newbery:—

SiO ₂	...	...	...	...	...	56.309
Fe ₂ O ₃	...	...	...	...	...	2.579
CaO	...	...	...	...	...	17.354
PO ₅	...	...	...	...	...	15.894
CaO.CO ₂	...	...	...	...	...	7.954
						100.090

CaO and PO₅ stand in the proportion to each other to form the tribasic phosphate (*apatite*). SiO₂, Fe₂O₃, and CaO.CO₂ may be considered as impurities, as their percentage varies in different samples. Some of the specimens contain a much larger percentage of SiO₂, which is generally so intimately mixed with the phosphate and carbonate that it cannot be separated by any mechanical process.

WAVELLITE.

This mineral, hitherto not known in the colony, was discovered by Mr. Norman Taylor, geological surveyor, about two miles north of Lancefield, in lower silurian graptolite shales. It occurs, covering the bedding planes of the shales in the characteristic yellowish or greenish disc-like plates with finely radiated structure, exactly similar to the specimens from Devonshire, Bohemia, Saxony, and other places. In addition to this structural coincidence of the mineral with *Wavellite*, its identity with it is put beyond a doubt by its behaviour before the blowpipe, and in the moist way, viz., by giving clear evidence of the presence of phosphoric acid and alumina.

STRUVITE.

During a recent exploration of the Skipton caves near Ballarat, Messrs. Etheridge and Murray, geological surveyors, collected samples of the guano that, to a considerable depth—perhaps 20 feet or more—covers the bottom of the caves, being apparently in a great measure derived from the excrements of thousands of bats which use the caves as hiding places in daytime, when they can be observed banging in large clusters suspended from the roof. The guano has a rich-brown color, and is full of light-yellow, subtransparent, crystalline particles and glistening, perfect crystals of a mineral that experiments prove to be *Struvite*. Before the blowpipe it imparts to the flame the characteristic bluish-green color of phosphoric acid, and fuses easily to a white enamel, which assumes a fine purple color with solution of cobalt. Heated in the closed tube it becomes white opaque, whilst giving off water and fumes of ammonia. A bluish-green color imparted by it to a soda bead proves the presence of manganese.

According to a quantitative analysis made by Mr. Edward Pittman, under the direction of Mr. Cosmo Newbery, at the Geological Survey laboratory, its composition is as follows:—

MgO	...	...	...	...	16.57	Magnesia.
FeO	...	...	...	...	0.95	Protoxide of iron.
MnO	...	...	...	...	traces	Protoxide of manganese.
PO ₅	...	...	...	...	28.81	Phosphoric acid.
HO+NH ₄ O	...	...	...	...	54.49	Water and ammonia.

100.82

which shows a close agreement with the results of an analysis by Ulex, given in Dana's *Minerology*.

The main forms of the crystals—the largest of which are about three lines in length—are shown in Figs. 5, 6, 7, 8, and 9. They represent quite different modifications from those given in Dana's, Naumann's, and other mineralogies, though, with the exception of perhaps one, all the planes appear to have been previously observed.

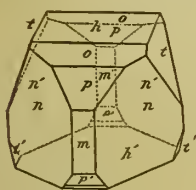


FIG. 5.

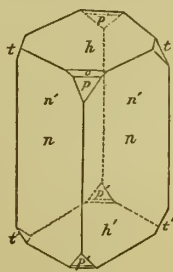


FIG. 6.

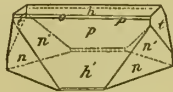


FIG. 7.

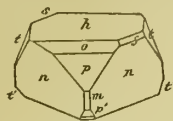


FIG. 8.

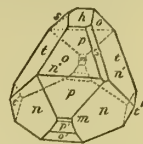


FIG. 9.

of crystals examined, there were only a few (Figs. 8 and 9) on which the planes marked *s* are evidently of this character.

Measurements of angles around the main zones of a number of good crystals gave closely agreeing results, the mean of which is as follows:—

$h : o = 137^{\circ} 40'$	$h : t = 121^{\circ} 40' \text{ (right)}$	$p : p \text{ over } h = 58^{\circ}$
$h : p = 119^{\circ}$	$h : t = 121^{\circ} 40' \text{ (left)}$	$p : m \text{ over } h = 29^{\circ}$
$h : m = 90^{\circ}$	$t : t \text{ over } h = 63^{\circ} 20'$	$n : n = 96^{\circ} 36'$
$o : p = 161^{\circ} 20'$	$h' : t' = 121^{\circ} 40'$	$n : n' = 83^{\circ} 24'$
$p : m = 151^{\circ}$	$p : o \text{ over } h = 76^{\circ} 40'$	$n : m = 138^{\circ} 12'$
$m : p' = 151^{\circ}$		

On comparing the angles $m : n$; $m : p$; $m : h$; $t : t \text{ over } h$; $n : n \text{ over } m$; $p : p \text{ over } h$, with those recorded for the crystal figured in Dana's *Mineralogy*, a pretty close agreement is found to exist respectively with $O : \bar{1}\bar{1} = 138^{\circ} 25'$; $O : \frac{1}{2}\bar{1} = 151^{\circ} 25'$; $O : \bar{1}\bar{1} = 90^{\circ}$; $\bar{1}\bar{2} : \bar{1}\bar{2} \text{ over } \bar{1}\bar{1} = 63^{\circ} 8'$; $\bar{1}\bar{1} : \bar{1}\bar{1} \text{ over } O = 96^{\circ} 50'$; $\frac{1}{2}\bar{1} : \frac{1}{2}\bar{1} \text{ over } \bar{1}\bar{1} = 57^{\circ} 10'$; and the planes O ; $\frac{1}{2}\bar{1}$; $\bar{1}\bar{2}$; $\bar{1}\bar{2}$, are therefore no doubt identical with m , p , h , t , and n respectively. The plane I marked o in the figures of our Victorian crystals is absent in the crystal drawn in Dana's *Mineralogy*, though it agrees well with a plane marked c on a crystal figured in Naumann's *Mineralogy*: angle $c : c$, being there given as 95° , whilst I make angle $o : o = 95^{\circ} 20'$. Naumann's plane a is no doubt also identical with Dana's $\bar{1}\bar{2}$ and t in my figures, according to angles $a : a = 63^{\circ} 7'$; $\bar{1}\bar{2} : \bar{1}\bar{2} = 63^{\circ} 8'$, and $t : t = 63^{\circ} 20'$. The hemihedral plane s seems to be quite new, and is, as before remarked, very rare: it was, on account of its small size and dullness, not measurable. The manner in which I have placed the crystals upright differs from that adopted in Dana's *Mineralogy*, where m instead of h is chosen as top-plane, but is, I think, justified by their different mode of development. The nearly symmetrically developed crystal represented in Fig. 6 served me as a guide, and on it plane m , which is generally very small, is entirely absent. With regard to the terminal and basal planes h and h' , it has to be mentioned that the former, which is invariably smaller than the other, is generally bright and even, whilst h' is mostly devoid of one or both these properties, and therefore seldom fit for measurement. Between the upper pyramidal planes and the corresponding ones below, I observed no marked difference, neither in lustre nor evenness.

Accompanying the *Struvite* there occur also in the guano white earthy nodular patches that have, according to Mr. Newbery's analysis, a similar composition as the former, except that water is absent. Whether they are the result of the decomposition of *Struvite*, or, on the contrary, represent, so to speak, the matrix from which that mineral has been formed, is left uncertain. That the *Struvite* crystals, on exposure to the atmosphere, become soon coated with a white powdery crust of decomposition, would speak for the former view.

FLUOR-SPAR.

This mineral has recently, for the first time, been found in Victoria, by Mr. Ed. Dunn, in the brecciated porphyry dyke near Beechworth, that contains, as previously mentioned, implanted grains of *tin-ore*. It occurs in small, imperfect, octahedral crystals, short narrow veins, and small patches; has a dirty amethystine color, and is mostly associated with iron pyrites and chalcadonic quartz.

SAPPHIRE, ORIENTAL RUBY.

The Rev. Dr. Bleasdale reported to the Royal Society, some time ago, that a number of grains and imperfect crystals of the true *Oriental Ruby* of fine color, and several of a size worth cutting, together with larger grains of yellow and green *Sapphire* (*Oriental Topaz*, *Oriental Emerald*), had been discovered somewhere in the neighborhood of Pakenham, near Mr. Henty's station, confirming thus my determination of small grains of the identical varieties of *Sapphire* from the same district several years ago. He kindly presented to the National Museum one of the *Rubies*—a small but nearly perfect crystal of the form given in Fig. 10 (hexagonal prism with pyramidal planes)—that from its fine violet color would by jewellers be called *Oriental Amethyst*. It resembles the *quartz-amethyst* indeed very much, but its distinction from the latter is easily proved by its more acute pyramid, far superior hardness (scratching *topaz*), and its action upon the dichroscope. It also shows before the blowpipe, on and after strong heating, a behaviour generally recorded for the *spinel ruby*, but which, by repeated trials with specimens of the *Oriental Ruby*, I found to be also characteristic of the latter, viz., that it becomes quite dark opaque, and on cooling turns first green, then colorless, and ultimately resumes its original red color.

The exact place, mode of occurrence, and matrix of the gem-stones shown by Dr. Bleasdale were not for certain known at the time. A geological excursion through that district since enables us now, however, to state, with some certainty, that the *Rubies* hitherto shown came from the *locale* of the Berwick tin-mine, viz., William Wallace's Creek, that drains the ranges north of the Gippsland road, about eighteen miles north-east of the township of Berwick. And it can further be stated that there is every probability of tributaries of this creek, and perhaps independent neighboring creeks, containing the gem likewise. The main geological formation of that part of the country, and for a great extent further north and east, consists of granite, that in the rather steep ranges, bounding Wallace's Creek, is of a coarse-grained and highly porphyritic character. The crests of these ranges are, however, in parts covered by an older non—or but slightly—vesicular *dolerite*, rich in *olivine*, that bears a very close resemblance to the older *doleritic* basalts of Phillip Island and Western Port, with which it was probably contemporaneously erupted, and once stood in connection, and that by its decomposition and consequent production of rich marly soil gives rise to the luxuriant vegetation of those districts. Which of the two rocks, whether *granite* or *basalt*, is the matrix of the *Ruby*, could not definitely be ascertained, but certain circumstances lead to the conclusion that it is very probably the latter. The drift of Wallace's Creek is rich in nodules and pebbles of *chalcadonic varieties of quartz*, and the miners have observed that wherever colored stones (*Ruby*, *Sapphire*, &c.) occur, they are always associated with these *chalcadony* pebbles; whilst, on the other hand, none of the former are found, where the latter prove absent. These facts justify the supposition that both minerals have been derived from the same matrix, and that this is the older *doleritic* basalt, just spoken of, does not admit of much doubt, if we remember its close resemblance to the basalt of Phillip Island and neighborhood, and that the latter is specially rich in *chalcadony*, which occurs in regular veins, composed of disconnected nodules and geodes. The derivation of the different varieties of *Sapphire* from the basalt at Wallace's Creek would also well accord with their occurrence in the basaltic rocks of Europe—for



FIG. 10.

instance, of the Auvergne, the Rhine, &c.—and also with the frequency of the common *Sapphire* in the gold-drifts of our western goldfields, especially Daylesford, Blue Mountain, Ballarat, Ballan, Loddon River, &c., where its being derived from older denuded basalts is generally considered an established fact. With regard to the origin of the fine *Sapphires* and *Rubies* found in the drifts of the extensive Beechworth goldfields, it is commonly thought that, as basalt appears to be absent, they come from the granite and other old crystalline rocks abundant in that district. This is, however, also doubtful, for Mr. Selwyn found, in his geological exploration of that part of the country, not only pebbles of dense crystalline basalt dispersed through the drifts of the goldfields, but, in addition, that most of the high ranges from which the Beechworth creeks take their rise are capped by patches of older basalt, thus proving conclusively that extensive denudation of this rock has taken place, and it may therefore here also have been the matrix of the *Sapphire*.

TOPAZ.

Of this gem-stone I have also to report two new localities of occurrence. Two very fine specimens, of light-blue color, and clear—one a rounded pebble, the other a rather water-worn crystal of the accompanying form (Fig. 11), and of 913·35 grains in weight—both now in the National Museum—were discovered by Mr. Brown's Geological Survey party in the washed pebble-heaps of the Bradford Lead, Maldon. They are both of a size and clearness to be of value to the lapidary, and the larger one is very little inferior to the celebrated blue *Topazes* found several years ago at Dunolly.

Mr. Hornsby, of Maldon, possesses a broken quartz-pebble, also from the above lead, that shows embedded a colorless transparent crystal of *Topaz*, about two lines in length. Though very much resembling it in appearance, it is easily distinguishable from *rock crystal* by its terminal planes, the oblong form of the prism, and the vertical striation of the prismatic planes. The second new locality for *Topaz* is the Mount Greenock Lead, near Talbot. I have seen and examined from there small rounded grains up to a pea in size, transparent, colorless, and of light-blue color. Pebbles have, however, been found larger than a walnut—unfortunately, however, too much fractured to be of any intrinsic value. An interesting novelty with regard to *Topaz* was lately communicated to me by Mr. Ed. Dunn, of Beechworth, namely, that he had been shown a rounded piece of the mineral of the size of a large bean that contained a number of small fluid cavities of various sizes, showing gas- or air-bubbles. Remembering that Sir David Brewster discovered in *Topaz* crystals from the Brazils, Scotland, and, as mentioned in Dana's *Mineralogy*, also from Australia, the two rare fluids *brewsterinite* and *cryptolinite*, it is not at all unlikely that either of the two, or perhaps both, are represented in the specimen seen by Mr. Dunn. That the cavities and bubbles are numerous visible to the naked eye, appears also a rare occurrence, as, according to Dana, they are mostly microscopic.



FIG. 11.

GARNET.

The precious variety of this mineral—the *Almandine*—hitherto only known from the gold-drift of numerous creeks of the Beechworth goldfields, is reported from creeks of the mountainous country north-east of Berwick. Mr. Norman Taylor found it in the washdirt of a hole sunk at Hill's corner, near Dr. Baynton's station, at the junction of the Silurian and granite, the latter overlaid by basalt. It generally appears in irregular flat dark pinkish-violet colored grains; only one small crystal—a perfect trapezohedron—was observed. He also found grains of similar color and character in the basalt of Magnet Hill—same locality.

Rounded granules of the mineral, some nearly of the size of a small pea, were discovered in specimens of a peculiar porphyritic greenstone brought by Mr. Selwyn from the base of Mount Timbertop.

For the common *Garnet* four new places of occurrence deserve special mention. The first is the Bradford Lead, Maldon, where it is found in more or less perfect crystals embedded in washed crystals and pebbles of *rock crystal* and *smoky quartz*. They were first considered to be *rubellite*, but after Mr. Hornsby, of Maldon, who discovered the mineral, sent specimens for examination to the Geological Survey Office, I identified them as *Garnets*. More specimens were obtained by the Geological Survey party under Mr. Brown's direction, amongst which was one pebble of *smoky quartz*, that yielded, on being broken, about eight small crystals. They are of no value to the lapidary, as their size only varies from that of a pin's head to that of a pea—rarely—and their color from light honey-yellow to dark-blood and brownish-red, the larger crystals being generally cloudy or quite opaque. The form of the perfect crystals is that of the rhombic-dodecahedron, modified by the planes of the common trapezohedron; but there are some crystals—generally those of yellow color—that are real crystallographic curiosities. These generally appear—on being first exposed through breaking of the matrix—as regular hexagonal tables, or rather as the basal planes of hexagonal prisms, with the horizontal edges truncated by very narrow pyramidal planes, and the basal plane itself mostly showing fine concentric striae. On one or two crystals these striae appear, as it were, to rise gradually from the margin towards the centre of the plane: they are in reality the edges of innumerable, extremely thin, hexagonal plates of gradually decreasing size, piled symmetrically upon each other up to a point, thus forming apparently a very low hexagonal pyramid. (Fig. 12 a.) It would hardly have been possible to recognize these forms as modifications of monometric crystals, had not a couple of them, on being with considerable difficulty detached from the quartz, exhibited triangular and rhombic planes on the reverse of the quasi pyramid, that enabled me to deduce the abnormal forms as resulting from the imperfect development of part of, or more commonly the halves of the crystals, i.e., each is only properly developed up to a plane cutting right through the centre of the rhombic-dodecahedron, or running parallel to this centre plane, as shown in Fig. 12 b.

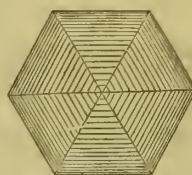


FIG. 12 a.

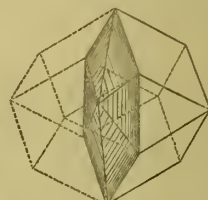


FIG. 12 b.

The second new locality of occurrence of the common *Garnet* is in the granite ranges near Chiltern. Mr. Brough Smyth kindly showed me some time ago one of the specimens found by the Rev. Mr. Love, of Rutherglen. This was an imperfect crystal of nearly the size of a walnut, of a deep brownish-red color, in places rather opaque and flawed, and showing the planes of the rhombic-dodecahedron and trapezohedron (truncating the edges of the former) nearly in equilibrium, similar to the *Garnets* discovered in South Australia. As specimens of this size, if clear and without flaws, would be of value to the lapidary, a closer examination of the respective locality might perhaps prove remunerative.

Quite recently Mr. Ed. Dunn, of Beechworth, presented me with a number of *Garnet* crystals, from a large pin's head to above a pea in size, found on Lady Franklyn Hill, near Chiltern. They are quite opaque, of dark greyish-brown color, and represent the common trapezohedron, some modified by narrow planes of the rhombic-dodecahedron.

The fourth new find of *Garnet*, notified to me by Mr. Ed. Dunn, was made in workings lying about two chains south of the shaft sunk on No. 3 tin-ore vein, near Beechworth, previously described. The mineral occurs here in rounded grains and perfect crystals, from a pin's head to that of a pea in size, which are of deep wine-yellow color and semi-transparent. The crystals represent the trapezohedron, rarely modified by planes of the rhombic-dodecahedron.

QUARTZ AND SOME OF ITS VARIETIES.

In my former description of Victorian minerals, I mentioned that near Dr. Baynton's station very fine *Quartz* crystals occurred, some nearly two inches in length, each of which showed within an envelope of *Rock crystal* a small crystal of white opaque *Quartz*. Mr. Norman Taylor, field geologist, the discoverer of the specimens, has since kindly given me the following particulars with respect to their occurrence:—On getting a hole sunk in the granite on Jew's Harp Creek, south-west of Dr. Baynton's station, a horizontal crack or elongated cavity was struck in the rock, the walls of which were lined with the crystals pointing towards each other, and the intermediate spaces being filled with a yellow clay. The crystals exhibit their mode of growth in a very marked manner, especially when polished, and some show peculiar features, indicating some disturbance during their formation. One, for instance, appears to be split at the top, and within the

opening lies a smaller imperfect crystal crosswise. On several others the transparent envelope appears to have been broken down at the base, so as to permit the protrusion of the pyramidal points of the inner white opaque crystals. One of these looks as if it had been broken obliquely through the prism and re-cemented again with a slight displacement, the edges of the junction showing narrow planes of the pyramid. In most of the specimens found, the white opaque crystals appear within or very near the centre of the envelope; the remainder show them, however, quite on one side. Very fine and large *Rock crystals*, some enclosing filamentous tufts of a green mineral, probably *chlorite*, and attached to large crystals of *orthoclase*, have been found in the bed of the Coliban River, below Orr's station (Stratford Lodge). They are apparently derived from a vein in granite under the little falls of the river.

Druses of fine large *Quartz* crystals (*Rock crystal* and *Cairngorm* occasionally) occur, as mentioned, in the vein carrying *molybdenite*, *wolfram*, &c., discovered by Mr. Rule near Maldon. A great number of the crystals, I examined contain enclosed acicular crystals and tufts of *schorl*, and some are modified by the more common hemihedral planes (2-2, Fig. 186, Dana's *Mineralogy*). The most interesting specimen in Mr. Rule's possession, however, is a tolerably clear crystal, about half an inch long, and nearly as broad, which exhibits inside, near the top of the pyramid, a small tuft of *schorl* needles, and above this a fluid cavity with a very lively air- or gas-bubble of nearly the size of a small pin's head.

Agate.

Two new places of occurrence of this mineral have been discovered, the one by Mr. Hardy in the surface-drift near Berwick and Dandenong, the other by Mr. Charles Wilkinson in the shingle bed at the mouth of the Gellibrand River, Cape Otway coast. The specimens from both places show banded patterns, those from the latter being nodules of 3 to 4 inches in diameter.

Flint.

It was also found by Mr. Hardy in nodular masses, several inches in diameter, in the surface-drift near Dandenong. Color, dark smoky-brown with nearly opaline lustre; nodules coated with a white earthy, siliceous crust.

OPAL.

Fine nodular pieces of it have been found in the basalt near Sunbury. One specimen, in the Public Museum collection, is colored light-blue in the centre, and greenish-brown outside, showing in this outer division parts that are white, vesicular, and friable, and contain *iron pyrites*. Both the blue and brown portions become, according to Mr. Newbery's examination, opaque white on heating, and contain Fe and Al . The brown portion contains 6.8 per cent. of H and has a specific gravity of 2.049; the blue nucleus gives 8.5 per cent. H , and has a specific gravity of 2.038.

Another new locality for *Opal* is the basalt of an outlier at Gelantipy, Gippsland. It is there abundantly dispersed through the rock in small rounded grains, some of which, by showing some play of colors, resemble the real *precious Opal* very much.

EPIDOTE, EPIDOSITE (EPIDOTE ROCK).

This mineral has not as yet been observed well crystallized in Victoria. It occurs in the neighborhood of Talbot, on the range at the head of Nuggety Gully, in yellowish-green patches of fibrous or divergent structure, associated with *quartz* and flesh-colored *orthoclase*. This mineral mixture—in which the felspar greatly predominates—appears to form a vein traversing *syenite*, and might be called either *Epidote granite* or *Epidote syenite*, just according as the *Epidote* is considered to replace *mica* or *hornblende*.

Epidote occurs also in the rather rare form of a dense crystalline rock, associated with a patch of diorite greenstone. The locality is in the lower silurian ranges, about two and a half miles south-east of Tarilta, a little township on the Kangaroo Creek, seven miles south of Castlemaine. In several holes sunk by the Geological Survey party to determine the boundary of the greenstone, the *Epidote rock* was struck, forming apparently a zone of uncertain width between the greenstone and silurian. It consists of an intimate mixture of yellowish-green *Epidote*—*Pistacite*—with *quartz*, and is in places rendered porphyritic by accession of thin needles of black *hornblende* and crystals and crystalline particles of *albite*. A carefully selected sample of the dense green, non-porphyritic rock showed a specific gravity of 3.25; and two quantitative analyses, one of this, the other of a more quartzose portion, gave respectively:—

No. 1.				No. 2.			
Dense green rock.				More quartzose sample.			
SiO_2	...	...	51.80	...	...	59.62	
Al_2O_3	...	...	20.80	...	...	17.86	
Fe_2O_3	...	...	15.20	...	...	5.60	
CaO}	...	...	12.20	...	...	14.65	
MgO}	...	...	traces	...	...	traces	
KO}	...	...	traces	...	...	traces	
NaO}	...	...	traces	...	...	traces	
HO}	...	...	—	...	...	2.48	
100.00				100.21			

Of which the composition of No. 2 agrees tolerably well with that of *Epidosite* from Canada, analyzed by Sterry Hunt. A calculation to determine the amounts of *quartz* and pure *Epidote* in the rock sample, No. 1, from the respective specific gravities of the three bodies—taking *quartz* as 2.64, *Epidote* as 3.4, and the rock as 3.25—gives very nearly sixteen per cent. of *quartz* and eighty-four per cent. of *Epidote*. Deducting the former from the silica of the analysis, and calculating the remainder again to percentages, leaves SiO_2 42.6, Al_2O_3 24.8, Fe_2O_3 18.1, CaO 14.5—a composition agreeing tolerably well with that of the variety of *epidote* called *Pistacite*.

AUGITE.

This is rather a rare mineral in the colony, as it was hitherto known to occur but sparingly and imperfectly crystallized in two or three places. Fine solitary crystals of it, of the form shown in Fig. 13, have lately, however, been found at three new localities. The first is at the foot of Mount Wallace, near Steiglitz, in a kind of basaltic ash, and the discovery was made by the Water Supply engineer's party, whilst sinking trial shafts. The crystals which I identified as *Augite* in a lot found by my brother are up to half an inch in size, and generally associated with crystalline pieces of *oligoclase*. The small plane *t* (see figure) appears to be very rare. The other two new localities, found by Mr. Brown's Geological Survey party, are on the slopes of Mount Hepburn and near a spring on the west side of Mount Moorokyle. The matrix of the crystals is here also a crumbly basaltic ash; they are, however, very small, generally not above an eighth of an inch in size, yet mostly perfect all round. Twin crystals and the small oblique top plane *t* appear to be pretty frequent.



FIG. 13.

SERPENTINE, CHIRYSOTILE.

Amongst a number of minerals and rock specimens collected by Mr. Selwyn on his geological excursion to Mount Timbertop are several from the flank of this mountain that closely resemble the specimens of greenish-black *Serpentine* rock I brought from the Radau Valley, Hartz Mountains, North Germany; and the result of a quantitative analysis of the

rock by Mr. Cosmo Newbery has indeed proved it to be *Serpentine*, and not very different in composition, at least as regards the principal constituents, from the Hartz rock, as will be seen on comparing the two analyses :—

Rock from Mount Timbertop.					Rock from the Redan Valley, Hartz; analysed by Prof. Dr. Streng.*				
S	...	...	...	—	...	...	...	...	trace
TiO ₂	...	...	...	—	...	...	...	...	—
SiO ₂	...	...	...	39.90	...	...	...	...	35.67
Al ₂ O ₃	...	...	...	8.20	...	...	...	...	2.98
Fe ₂ O ₃	...	...	...		...	...	...	...
Cr ₂ O ₃	...	...	...	—	...	...	...	...	0.87
FeO	...	...	...	—	...	...	...	...	4.95
CuO	...	...	...	—	...	...	...	...	trace
MnO	...	...	...	—	...	...	...	...	0.11
CaO	...	...	...	—	...	...	...	...	0.18
MgO	...	...	...	36.80	...	...	...	...	35.03
KO	}	...	...	—	...	...	...	...	0.77
NaO		...	...	—	...	...	...	...
Chromic Iron	...	...	...	—	...	...	...	...	1.37
PO ₅	...	...	...	—	...	...	...	...	0.03
H ₂ O	...	...	...	15.40	...	...	...	...	12.04
				100.30					100.04

* Bronn's and Leonhard's *Year-book for Mineralogy, Geognosy, &c.*, 1862, pages 513 to 556, and 933 to 989.

Besides color and composition, there are in addition two other interesting points of resemblance between the Mount Timbertop and Hartz *Serpentine* specimens, viz., firstly, that both are traversed by thin seams of light-yellow, silky-fibrous *Chrysotile*, a sub-species of *Serpentine*, and, secondly, that whilst the latter specimens show in places a peculiar strong semi-metallic lustre, indicative of the presence of the mineral *schiller spar*, the former exhibit this lustre also, though far less pronounced; from which we may conclude, either that *schiller spar* was once present, and is now more or less changed into *Serpentine*, or that it is perhaps just in course of formation from this rock.

DAMOURITE (?).

Two of a number of worn crystals and pebbles of *smoky quartz*, obtained from the Bradford Lead, Maldon, contain a mineral embedded that, by its color and perfect cleavability into thin transparent laminae, greatly resembles *muscovite mica*. In one of the specimens it forms irregularly-shaped grains of a rose-red color, in the other a lenticular-shaped small mass, colored yellowish-white. Its hardness is about 2; it has a pearly lustre on the cleavage planes; fuses before the blowpipe with extreme difficulty on the edges to a white enamel; gives a fine blue color with cobalt solution, and, what distinguishes it from *mica*, gives off water in the closed tube on heating, and the laminae it can be split into are non-elastic. All these characters accord well with those given for *Damourite*; still a quantitative analysis (for which the material at hand does not suffice) would no doubt be desirable to conclusively establish the identity.

ALLOPHANE.

This mineral, which is quite new to Victoria, I identified in a fine specimen, kindly shown to me by Mr. Th. Couchman, Chief Mining Surveyor, who obtained it from Pleasant Creek, where it occurs in the cap of the Hampshire Reef, Golden Point. It has a fine honey-yellow color, and strong opaline lustre, with a certain iridescence playing through it in different directions, is very brittle, and has a hardness about 3. Treated before the blowpipe it gives off much water in the closed tube, falls with some intumescence to powder, and affords a fine blue color with solution of nitrate of cobalt; gelatinizes with hydrochloric acid. These reactions and its hardness prove clearly its difference from *opal*, for which it might easily be mistaken on account of its outward characters. It occurs, or rather forms kernels, in a white, rather loose sugary mineral, that shows similar reactions before the blowpipe as those just given, and may therefore be a variety of *Allophane*.

HALLOYSITE (PSEUDO STEATITE).

Substances that would come under this head have been found at several new localities. They are mainly composed of silicate of alumina, with a large percentage of water, soft, clay-like, of yellowish-white or greenish color, have a somewhat pearly or waxy lustre, a strong greasy feel, and are more or less translucent.

In the auriferous quartz veins traversing the large diorite dyke of the Morning Star Hill, Wood's Point, in the Alps Great Central Company's ground, I found a yellowish mineral of this class abundantly distributed through the quartz in small seams and patches. In places it was strongly impregnated with *iron* and *arsenical pyrites*, and then mostly mottled bluish-green, no doubt the result of the partial decomposition of these ores.

Thin seams and small patches of a similar mineral I found also in a yellowish soapy clay, apparently a decomposed elvan dyke, that forms the hanging wall of, and in places penetrates into, the Energetic Reef, Lauriston. Pieces of it, if placed in water, very quickly slacken, and the paste assumes a somewhat gelatinous appearance.

From one of the auriferous quartz reefs near Alexandra specimens have come under my notice, containing seams and patches that exactly resembled *saponite*, but gave before the blowpipe a fine alumina reaction. One of the specimens showed the interesting feature of several good-sized *gold* specks being enclosed within the mass of this mineral.

PYROPHYLLITE (?).

A yellowish-green, subtransparent mineral of striking *talc*-like aspect, and of same hardness, was lately forwarded to me by Mr. Ed. Dunn, who found it in the euriitic granite dyke carrying veins of *tin-ore* near Beechworth. It has a foliated, in places radiated, lamellar structure, and splits into thin flexible non-elastic scales of pearly lustre. Treated before the blowpipe, it yields water in the glass tube, and in the forceps turns pearly white, swells and exfoliates strongly, and fuses with great difficulty on the edges. With cobalt solution results a fine blue color.

According to these results, in connection with its physical properties, the mineral conforms most to *Pyrophyllite*, though it would need a quantitative analysis to remove all doubt.

PHOLERITE.

A new locality of occurrence of this mineral is, as before mentioned, the Albion Company's Reef, Steiglitz, in which it is found associated with *bournonite*, *tetrahedrite*, *gold*, &c., forming thin yellowish-white flakes and flexible laminae in hollows of the quartz, and often covering crystals of it and of the two first-named minerals completely. It could not be ascertained whether it also results here, as it does at Blacksmith's Gully, Fryer's Creek, from the decomposition of *albite*.

SELWYNITE.

A description of this new mineral has already been given in the Exhibition Essay of 1867; for certain reasons it deserves, however, a further notice. It occurs in upper silurian rocks on the flank of the Mount Ida Range, about four and a half miles north-west of Heathcote, whether as a dyke or irregular mass, the explorations do not at present permit to determine; yet it very probably stands in some connection with one of the number of diorite dykes traversing that particular district. So far as is known, the mineral, when first discovered, perhaps as an outcrop, was mistaken for *copper ore (malachite)*, and a shaft, said to be about 70 feet deep, was sunk on the spot. From the heap of stuff round this shaft, which has now fallen in, Mr. Norman Taylor, whilst geologically surveying the district, obtained a great number of specimens. These have now enabled us to thoroughly examine it and the minerals associated with it, obtain thus a better idea of their true nature, and correct some mistakes in the original description, which was founded on the examination of a few small specimens, the only ones then available.

Selwynite has, as yet, only been found massive; hardness, 3 to 4; specific gravity, 2.53; lustre, earthy, sometimes waxy; fracture, uneven and splintery; brittle. Its color ranges from siskin to dark-emerald and bluish-green, and it is sometimes minutely mottled in all these shades of green; sections of it up to a line and more in thickness are generally fine green translucent. Before the blowpipe it whitens and fuses on the edges to a greyish-white blebby glass; gives off water in the closed tube, and colors the beads of borax and microcosmic salt light-emerald green. Strong acids only partially dissolve it.

Four quantitative analyses of the mineral by Mr. Cosmo Newbery gave the following results:—

	I.	II.	III.	IV.
Si	47.15	47.25	48.42	48.23
Al	33.23	35.28	34.72	38.16
Cr	7.61	7.82	6.94	6.14
Mg	4.56	2.42	2.11	1.21
Na	...	...	2.03	3.12
H	6.23	5.67	4.83	2.90
	98.78	98.44	99.05	99.76

I. Analysis of first specimen found.—II., III., IV. Recent analyses of fresh specimens, showing similar color and hardness.

According to these variations in composition, most marked as regards the protoxide bases and the water, the mineral, like others of its class, does not seem to be constituted after a fixed chemical formula, for, on calculating the oxygen ratios, we find:—

	Si	Al	Cr	Mg	Na	H
I.	25.15	15.50	2.39	1.82	...	5.54
II.	25.20	16.44	2.45	0.97	...	5.04
III.	25.82	16.18	2.18	0.84	0.52	4.29
IV.	25.72	17.78	1.93	0.48	0.82	2.58

Or for,

	Si	R	R	H		Si	R	R	H
I.	25.15	17.89	1.82	5.54	} or {	13.82	9.83	I	3.04
II.	25.20	18.89	0.97	5.04		26.00	19.47	I	5.20
III.	25.82	18.36	1.36	4.29		19.00	13.50	I	3.15
IV.	27.72	19.71	1.30	2.58		19.70	15.16	I	2.00

which lead to very different and unsatisfactory formulæ. For instance, taking for No. I. the oxygen ratios:—

$14 : 10 : 1 : 3 = 42 : 30 : 3 : 9$, we obtain $21 \text{ Si}, 10 \text{ R}, 3 \text{ R}, 9 \text{ H}$, which may be combined either as:—
 $3 \text{ R Si}^2 + 5 \text{ R Si}^3 + 9 \text{ H} = 3 \text{ Mg Si}^2 + 5 (\frac{7}{8} \text{ Al} + \frac{1}{8} \text{ Cr})^2 \text{ Si}^3 + 9 \text{ H}$; or like:—
 $3 \text{ R Si} + 2 \text{ R Si}^5 + 9 \text{ H} = 3 \text{ Mg Si} + 2 (\frac{8}{9} \text{ Al} + \frac{1}{9} \text{ Cr})^5 \text{ Si}^9 + 9 \text{ H}$, giving the percentage ratios:—
 Si 47.83; Al 34.21; Cr 7.26; Mg 4.55; H 6.15 = 100.00.

For analysis No. III., the oxygen ratios would be: $19 : 13.5 : 1 : 3 = 38 : 27 : 2 : 6$, giving:—

$19 \text{ Si}, 9 \text{ R}, 2 \text{ R}, 6 \text{ H}$; nearest formula $\text{R}^2 \text{ Si} + 9 \text{ R Si}^2 + 6 \text{ H}$; or—
 $(\frac{3}{5} \text{ Mg} + \frac{2}{5} \text{ Na})^2 \text{ Si} + 9 (\frac{8}{9} \text{ Al} + \frac{1}{9} \text{ Cr}) \text{ Si}^2 + 6 \text{ H}$, for which percentage ratios:—
 Si 49.08; Al 35.48; Cr 6.59; Mg 2.07; Na 2.13; H 4.65 = 100.00.

On calculating the oxygen ratios for $\text{R} = 3$, we obtain, for the four analyses:—

	Si	R	R	H		Si	R	R	H
I.	4.22	3	0.30	0.93	} or {	42.2	30	3.0	9.3
II.	4.00	3	0.15	0.80		40.0	30	1.5	8.0
III.	4.22	3	0.22	0.70		42.0	30	2.2	7.0
IV.	3.91	3	0.195	0.39		39.1	30	1.9	3.9

which would correspond closely to atoms of :—

	Si	Al	R	H
I.	21	10	3	
II.	20	10	1.5	8
III.	21	10	2	7
IV.	20	10	2	4

and allow us to construct the following formulæ :—

- I. $3\ddot{R}\ddot{S}i + 2(\ddot{R}^5\ddot{S}i^9) + 9\ddot{H} = 3\ddot{M}g\ddot{S}i + 2(\frac{7}{8}\ddot{A}l + \frac{1}{8}\ddot{C}r)^5\ddot{S}i^9 + 9\ddot{H}.$
II. $\ddot{R}^{\frac{3}{2}}\ddot{S}i^2 + 2(\ddot{R}^5\ddot{S}i^9) + 8\ddot{H} = \ddot{M}g^{\frac{3}{2}}\ddot{S}i^2 + 2(\frac{7}{8}\ddot{A}l + \frac{1}{8}\ddot{C}r)^5\ddot{S}i^9 + 8\ddot{H}.$
III. $\ddot{R}^2\ddot{S}i^3 + 2(\ddot{R}^5\ddot{S}i^9) + 7\ddot{H} = (\frac{2}{3}\ddot{M}g + \frac{2}{3}\ddot{N}a)^2\ddot{S}i^3 + 2(\frac{7}{8}\ddot{A}l + \frac{1}{8}\ddot{C}r)^5\ddot{S}i^9 + 7\ddot{H}.$
IV. $2\ddot{R}\ddot{S}i + 2(\ddot{R}^5\ddot{S}i^9) + 4\ddot{H} = 2(\frac{3}{8}\ddot{M}g + \frac{5}{8}\ddot{N}a)\ddot{S}i + 2(\frac{7}{8}\ddot{A}l + \frac{1}{8}\ddot{C}r)^5\ddot{S}i^9 + 4\ddot{H}.$

giving percentage ratios for :—

	I.	II.	III.	IV.
Si	47.83	48.07	48.91	48.55
Al	34.21	36.10	35.00	36.46
Cr	7.26	7.66	7.42	7.73
Mg	4.55	2.40	1.86	1.21
Na	...	...	1.92	3.14
H	6.15	5.77	4.89	2.91
	100.00	100.00	100.00	100.00

NOTE.—The atomic weights used in the foregoing calculations, and throughout these notes, are those given in Dana's *Mineralogy*, fifth edition.

It will on comparison be found that these results agree pretty well with those of the four analyses, whilst the formulæ clearly represent that the silicate of the protoxides, together with the water, are the changeable constituents of the mineral. The apparently fixed constituent, the silicate of the sesquioxides, stands in a peculiarly interesting connection with another mineral, that traverses *Selwynite* in thin pearly seams, sometimes resembling silky threads, and that, from its indeed very close resemblance to *talc*, was mistaken for such, though after a recent close examination and analysis, which the original specimens did not permit, it has turned out to be quite a new mineral, and will be noticed next. The color of *Selwynite* is due to the sesquioxide of chromium, which is no doubt derived from the *chromic iron-ore*, abundant, as is well known, in the Heathcote and Mount Ida districts. In Dana's *Mineralogy*, fifth edition, 1868, the mineral is, on account of this chromiferous character, classed together with *wolchonskoite* and *chrome ochre*, in the appendix to the hydrous silicates, though with one exception—that of a chrome ochre from Halle, Germany (*vide* Analysis, page 510, Dana)—their differences in chemical composition are very great. Misled by the mistake regarding the *talc-like* mineral, and the constituent Mg, I was originally under the impression that *Selwynite* might be an altered chromiferous *serpentine*, and took it to be allied to *pyrosclerite*; but since the recent investigation I am inclined to regard it as perhaps an altered feldspathic mineral, related to some of the species placed by Dana under the *Pinite* group; for instance, to *giesekite* and *dysyntribite*. For the sake of easy comparison, I give here the results of the analyses by Stromeyer and Pfaff of the former mineral, as stated in Dana's *Mineralogy*, page 481, and of the latter by Shepard, *American Journal of Science*, II., se. XII., page 209; also that of No. III. Analysis of *Selwynite* by Newbery :—

	Si	Al	Fe	Cr	Mn	Fe	Mg	Na	K	H	
Giesekite—Stromeyer	46.08	33.83	3.36	...	1.15	...	1.20	...	6.20	4.89	= 96.71
Ditto—Pfaff	48.00	32.50	4.00	...	...	...	1.50	...	6.50	5.50	= 98.00
Dysyntribite—Shepard	47.68	41.50	...	...	...	5.48	...	...	...	4.83	= 99.49
Selwynite, No. III. Analysis—Newbery	48.42	34.72	...	6.94	...	...	2.11	2.03	...	4.83	= 99.05

These analyses show, that besides its containing a somewhat smaller amount of different protoxide silicate, the main specific character distinguishing *Selwynite* from the other minerals is only the presence in it, as an isomorphous substitute for alumina, of the sesquioxide of chromium, to which it owes its fine shades of green color. In a practical point of view it may likely, on account of this color, become of some value to the jeweller and lapidary; for instance, as a substitute for the small ornaments of New Zealand *nephrite*, which are at present very fashionable. It takes a very fair polish, but has unfortunately a tendency to crack along numerous fine joints, traversing larger pieces, thus rendering the cutting of ornaments beyond one inch in size rather difficult. Still, there is a probability that this unfavorable property, attaching to pieces taken from the surface of a heap of stuff for many years exposed to atmospheric influence, may be altogether absent in the mineral when freshly broken from the mass underground.

TALCOSITE.

A new mineral species. It occurs, as just mentioned, in thin, shining, transversely minutely laminated seams and threads in the *selwynite* of Heathcote, being in appearance, hardness, and feel so exactly like *talc*, that it was at first mistaken for it. Hardness, 1, in the line of lamination; 1.5 to 2.0 at right angles against it; specific gravity, 2.46 to 2.5; color, silver-white, with sometimes a faint greenish or yellowish tint; high pearly lustre; laminae or scales generally very small, translucent, and slightly flexible—not elastic. No distinct crystals observed as yet; they appear, however, to be rhombic plates, according to some specimens on which the exposed broad surfaces of seams show an irregularly oblique network of scaly crystals of apparently rhombic character. These surfaces bear some resemblance to the drusy aggregations, with upright edges of small obtuse rhombohedrons, in which *calcite* and *brown spar* are often met with. Treated before the blowpipe, it gives off water in the closed tube; becomes white opaque, and exfoliates in the forceps, and, after some blowing, fuses at 4 to a white blebby enamel; fine blue color with cobalt solution.

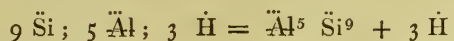
Two quantitative analyses by Mr. Cosmo Newbery gave the following results:—

	Si	Al	Cr	Fe	Mg	Na	H		
I.	49.01	45.1	trace	trace	trace	...	4.98	=	99.09
II.	49.07	46.96	"	"	"	trace	3.73	=	99.76

The oxygen ratios for silica, alumina, and water result as follows:—

			Si		Al		H
	I.	...	26.14	...	21.02	...	4.43
	II.	...	26.17	...	21.88	...	3.34
Or, {	I.	...	3.73	...	3.00	...	0.63
	II.	...	3.45	...	3.00	...	0.46
Or, {	I.	...	18.65	...	15.00	...	3.15
	II.	...	17.25	...	15.00	...	2.30

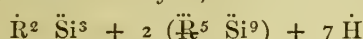
of which the mean would closely conform to:—



with the calculated percentage composition of:—

Si	Al	H	
48.70	46.43	4.87	= 100.00

A comparison of this formula with that found for *selwynite*, for instance of No. III. analysis, viz. :—



shows a remarkable coincidence in the ratios of the sesquioxide and silica; in fact, it would appear as if *Talcosite* had been formed out of *selwynite* by removal or dissolving away, in the line of its seams, of all the protoxide silicate, half of that of the sesquioxide, including all the chromic oxide, and some of the water; or as if it had, as it were, crystallized out of the *selwynite*, leaving the respective constituents behind. A great difficulty experienced in its decomposition speaks, however, somewhat against this latter view.

As in none of the Mineralogies consulted a mineral can be found similarly constituted, it must therefore be regarded as a new species, and it is proposed to call it *Talcosite*, on account of its close resemblance to *talc*. In its physical properties, and the quantity of water it contains, it is no doubt closely allied to *pyrophyllite*, but differs from it too considerably in the percentages of silica and alumina as to be considered identical. On the other hand, it also has some resemblance to several of the varieties of *kaolinite* (described in Dana's *Mineralogy*, fifth edition) both in outward character and in approaching them in its contained silica and alumina; however, we meet here again the material distinction of the *kaolinites* containing nearly three times as much water. Dana's comparison of *pinites* to an *alkali-alumina serpentine* and *pyrophyllite* to an *alumina talc*, would no doubt be applicable also to *Selwynite* and *Talcosite*, with this difference, that the former may be more strictly designated as a *chrome-alumina serpentine*.

FIBROLITE.

Mr. Ed. Dunn, of Beechworth, presented me lately with a number of specimens, collected in the granitic neighborhood of that town, amongst which I recognized three pieces of the mineral *Fibrolite*, which has hitherto only been known to occur in the granite of the Moroka Valley, Gippsland. It is of fibrous massive structure, greyish-white and hair-brown color, and bears great resemblance to *tremolite* or *asbestiform hornblende*, for which indeed it might very easily be mistaken. Its perfect infusibility before the blowpipe, and the fine blue color it gives with solution of cobalt, shows, however, the distinction. A qualitative analysis by Mr. Newbery showed only alumina and silica, and a doubtful trace of magnesia.

ANALCIME.

This zeolite was hitherto only known to occur very finely crystallized in the older basalt of Phillip Island. It has recently, however, been also found in the basalt of Chambers' quarry, Richmond, associated with *herschelite* and *phillipsite*. The crystals are, however, very small—the largest scarcely a line in diameter—and form dense aggregations, or regular drusy coatings on some of the specimens, and being of yellowish-white color and nearly transparent, appear generally quite black on account of the dark basaltic background shining through them. Their form is the common trapezohedron, not modified, as far as I could observe, by any other planes.

SCOLECITE.

I identified this zeolite for the first time in thin drusy coatings of very minute crystals on decomposing granite from O'Keefe's shaft, Preston Vale (Coliban water supply contract). The small size of the crystals allows nothing beyond recognizing them as prismatic, with pyramidal planes. The strong curling up of the mineral before the blowpipe and the large amount of lime it contains, as indicated by a qualitative analysis by Mr. Newbery, leave no doubt, however, of its being *Scolecite*. Its origin is most likely, in some measure, due to the decomposition of the *oligoclase felspar*, which is very abundant in the granite of the just-mentioned locality.

I also recognized *Scolecite* lately by its reaction before the blowpipe, and in the moist way on some specimens of a dense greenstone from the neighborhood of Yackandandah, sent to me by Mr. Ed. Dunn. It occurs in joints and cracks of the greenstone in thin, white coatings with radiated structure somewhat resembling *wavellite*.

MESOLITE.

A zeolite likewise new to Victoria. It occurs in spheroidal nobs, and rarely stalactitic forms, in hollows of the very vesicular basalt from the shaft of the Ballarat and Clunes Mining Company, Clunes. The nobs are of a pale-blue color, semi-translucent and have a weak pearly lustre, closely resembling some mammillated chalcedony. On account of this appearance the miners call it *pearl-stone*. The internal structure of the nobs is minutely radiated, and the fracture shows also pearly lustre. The stalactitic forms are generally white opaque, but in fracture similar to the sphaerules. Before the blowpipe the mineral swells and curls—not quite as strongly as *scolecite*—and fuses ultimately to a white blebby glass. It is associated with *herschelite*, *chabazite*, and *calcite*.

HERSCHELITE.

After the first discovery by Mr. Wilkinson (of the former Geological Survey) of this interesting and rare zeolite—several years ago—in an old basalt quarry near the River Yarra at Richmond, only a few inferior specimens were obtained from this place, owing to the flooding of the quarry by the river and its consequent abandonment since. Last year Mr. Ed. Pittman, assistant in the Geological Survey laboratory, found, however, in Chambers' large quarries, adjoining the old quarry, not only

specimens of the old type of *Herschelite* crystals, described by me in the Exhibition Essays of 1867, page 61, and for the sake of comparison represented in Fig. 14, but also, associated with *phillipsite*, *analcime*, and *calcite*, very fine crystals—a number nearly perfect all round—showing modifications of planes not recorded in the principal works on mineralogy. The most interesting of these is shown in Figs. 16 *a* and *b*. It consists of a rather obtuse hexagonal pyramid τ with replacement of the lateral corners by planes p of a second, acute, hexagonal pyramid, and it will be seen, on comparing it with Fig. 14 of the old type crystal, that the perfect pyramid τ is indicated on the latter by small triangular planes, which in Fig. 15 (another



FIG. 14.



FIG. 15.



FIG. 16 a.

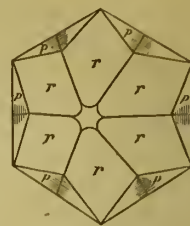


FIG. 16 b.

form from the new place) have grown to a size, as to be, as it were, in equilibrium with the acute pyramid p and terminal plane o . About the identity of the respective planes on the three forms there can be no doubt, as proved by a number of measurements, and it must be remarked that the pyramidal planes τ have never been observed except in combination with the particular pyramid p . They are generally bright and even below, but become dull, and their terminal edges appear rounded off towards the apex, that has as yet not been seen perfect on any specimen found. The planes p show a very flat re-entering angle (as noticed of those of the old type crystal), have a bright, glassy lustre, but are extremely uneven, and therefore very difficult to measure with any degree of accuracy. The following angles have been obtained as the mean of a number of tolerably well agreeing measurements of different crystals: $-p : p' = 134^\circ 10'$; $\tau : r = 145^\circ$; $\tau : r' = 73^\circ 51'$ ($73^\circ 56' 32''$ calculated on taking $\tau : r = 145^\circ$ correct as the better angle). Neither of the first two angles agrees with that given by Dr. Victor von Lang in his mineralogical notes (*Phil. Magazine*, series 4, vol. 28, page 506) of apparently analogous planes, $502 : 502 = 50^\circ 30'$ (compt.). Fig. 1, Plate VII., of a crystal of *Herschelite* from Richmond, of one of the first specimens found by Mr. Wilkinson, and presented by Mr. Selwyn to the British Museum. The learned doctor makes also no mention whatever of the indication of the second pyramid τ , nor of the flat re-entering angle of planes p , both which characteristics I have never seen absent on this type of crystal, and it is therefore quite evident to me that he measured a very rare form, of which no specimens have come under my notice. The crystals of form Fig. 16 are generally quite transparent, rarely white opaque, and sit seldom on the hard basalt, but mostly on a thin layer of brown or greenish-black, soapy clay, that lines the cavities of the rock—a circumstance which makes specimens difficult to preserve, on account of the cracking of the clay on exposure to the atmosphere. They appear in irregular drusy aggregations, rarely singly grown up. (Mr. Pittman presented, besides smaller ones, one specimen to the Public Museum, nearly 6 inches square covered all over with fine transparent crystals), but show no tendency to the pretty, rosette-like grouping, (Fig. 17) of the crystals of the old type. Of these latter, Mr. Pittman found some white opaque ones of nearly $\frac{3}{4}$ inch in diameter, also some smaller transparent ones, grown irregularly round a thin vein of dark, hardened clay. Some of these strings of crystals are above 1 inch in length, and fine single crystals, perfect all round, could be obtained from them by careful detachment.

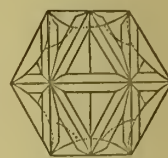


FIG. 17.

The rarest new forms of the mineral were found by Mr. Norman Taylor, and are represented in Figs. 18 and 19. In Fig. 18 the planes of the very acute pyramid are deeply striated horizontally, and therefore not fit for measurement. The whole aspect of the crystals is very near that of hexagonal prisms; some have the central horizontal edge quite obliterated, and appear thus barrel-shaped, similar to those of *pyromorphite*.—Fig. 19: Perfect hexagonal tables, the prismatic planes strongly striated horizontally, and the basal edges replaced by pyramidal planes, too narrow and uneven for measurement. This form is very similar to one from Aci Reale, Sicily, shown in Fig. 3, Plate VII., of Dr. Victor von Lang's mineralogical notes, above referred to. The specimen found by Mr. Taylor does not, however, present single crystals, but always two and two grown together with the basal planes, as Fig. 19 shows.



FIG. 18.



FIG. 19.

It was formerly supposed that *Herschelite* belonged to the rhombohedral system, and, like *levyne* and *gmelinite*, was compounded of several rhombohedrons. Dr. Victor von Lang proved, however, by optical investigation that the simple crystal of *Herschelite*, yet unknown, must belong to the orthorhombic system, and that six are twinned together in the usual compound forms. Touching this latter deduction, I have to record some observations on a series of crystals which—not being proficient enough in crystallography—I have some diffidence in believing, might, if seen by the learned doctor, cause him, perhaps, to modify his opinion, at least for certain cases. Whilst examining the great number of fine specimens of *Herschelite* found by Mr. Pittman, I noticed that the always—more or less—rounded top planes of some of the crystals had a frosted or roughish-glistening appearance, and on examining one under the microscope found that this was not due to a crystalline coating of smaller crystals, as I at first supposed, but to countless minute triangular points or corners rising out of the mass of the crystal. On following this discovery up further, I was, on a number of different crystals, able to trace a regular gradation in the size of the points—on the one hand, to their being so minute as to be hardly perceptible under the $\frac{1}{4}$ -inch objective of the microscope, presenting to the naked eye the usual dull, to all appearance smooth top plane—on the other hand, I found, however, crystals

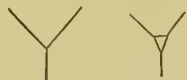


FIG. 20.



FIG. 21.

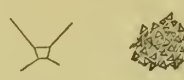


FIG. 22.



FIG. 23.



FIG. 24.



FIG. 25 a.

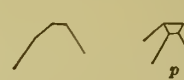


FIG. 25 b.



FIG. 26 a.



FIG. 26 b.

with unstanding points, nearly one-third line in size, some quite sharp (Fig. 20), but others with shining, partly triangular, partly trapezoidal curved planes truncating the sharp points (Figs. 21 and 22), producing a mixed dull and bright aspect of the top plane in reflected light (Fig. 23). In addition to, or rather as a consequence of this, the basal edges prove in side view to be acutely serrated, and whilst the common flat re-entering angles that lie generally in the centres of the pyramidal planes, communicate with one of these sharp indentations (of the basal edges), the terminal pyramidal edges of all the crystals examined merge into acute indented angles towards the basal plane. Fig. 24 represents this aspect of a crystal. Figs. 25 *a* and *b*, and 26 *a* and *b*, show the appearance of the small crystal points lying along the basal edges; p being part of the pyramidal plane of the large compound crystal. On reviewing all the facts in connection with this peculiar structure of the common type of *Herschelite* crystal, might it not be concluded, that the latter is symmetrically built up—not of six—but of a variable, indefinite number of micro-crystals? Any expert crystallographer examining the specimens could, I am convinced, not come to another result.

On one specimen I found also a number of crystals which showed globular, quite bright (appearing like glazed), though uneven and minutely broken top planes, in combination with planes of both pyramids p and τ , the former without any trace of an indented angle, the latter rather imperfect, being deeply striated, with a flat indented angle in the line, where the striæ meet, see Fig. 27. Accompanying these crystals I noticed crystals of what appeared to me *phillipsite*, of quite the same color as the former, and it struck me, from their peculiar mode of aggregation and the strong striation of the pyramidal planes, which appeared to meet at a more obtuse angle than usual—that twelve of them twinned together—with their terminal points rounded off, and their prismatic planes meeting at angles of 134° , to form pyramid p , would constitute the crystal depicted in Fig. 27. However, the possibility or otherwise of this combination must be left to crystallographers to determine: if possible for these crystals, it certainly does not suit the structure of those previously described; for the micro-crystals, composing them, have not the slightest resemblance to those of *phillipsite*. A strong obstacle in all cases, besides, would be the difference in the chemical compositions of the two minerals, as given further on.

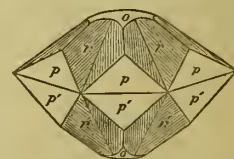


FIG. 27.

With regard to the cleavage of *Herschelite*, which is stated to be basal, I was not able to observe it on any of the specimens examined, nor on a number of crystals broken intentionally for the purpose of finding it: nothing but conchoidal fracture was the result of the operation.

In order to see how far the chemical composition of the Richmond *Herschelite* agreed with that of the mineral from other places, Mr. Edwd. Pittman made with special care, under the direction of Mr. C. Newbery, three quantitative analyses, that gave the following results:—

	SiO ₂	Al ₂ O ₃	CaO	KO	NaO	HO	
I. Large opaque crystals ...	45.33	22.22	7.11	0.97	5.54	18.67	= 99.84
II. Transparent, tabular crystals with frosted tops ...	46.05	22.07	7.06	0.72	5.48	19.25	= 100.63
III. Double hexagonal pyramids, partly transparent ...	46.26	23.04	7.02	0.09	5.96	18.52	= 100.89

On comparing these compositions with one of those given in Dana's *Mineralogy* for *Herschelite* from Aci Castello, Sicily, for instance:—

$\begin{matrix} \text{Si} & \text{Al} & \text{Ca} & \text{Na} & \text{K} & \text{H} \\ 47.39 & 20.90 & 0.38 & 8.33 & 4.39 & 17.84 \end{matrix} = 99.23$
a marked difference will be found, especially as regards the protoxide bases; lime and soda occupying in our mineral the place of potash and soda in that from Sicily.

A calculation of the oxygen ratios of the different components results for the three analyses as follows:—

	Si	Al	Ca	Na	K	H
I.	24.17	10.35	2.03	1.43	0.16	16.61
II.	24.56	10.28	2.02	1.41	0.12	17.11
III.	24.67	10.74	2.01	1.54	0.02	16.46

Or, for

	Si	R	R	H	Or {		Si	R	R	H	} = 7 : 3 : 1 : 5
I.	24.17	10.35	3.62	16.60		I.	6.99	3	1.05	4.81	
II.	24.56	10.28	3.55	17.11		II.	7.17	3	1.04	4.99	
III.	24.67	10.74	3.57	16.46		III.	6.89	3	1.00	4.69	

Corresponding to $3\frac{1}{2} \text{Si}$, $\frac{1}{2} \text{Al}$, $\left(\frac{4}{3} \text{Ca} + \frac{1}{3} \text{Na}\right)$, 5 H; or $\left(\frac{4}{3} \text{Ca} + \frac{1}{3} \text{Na}\right)^2 \text{Si}^3 + 2 \text{AlSi}^2 + 10 \text{H}$

giving 45.5 Si, 22.31 Al, 6.93 Ca, 5.76 Na, 19.5 H = 100. The oxygen ratio of R, R̄, Si, H of the Sicilian *Herschelite* is given as 1 : 3 : 8 : 5, and it seems, therefore, that our mineral is in this respect more closely allied to the *phacolite* from Leippa, Bohemia, analyzed by Rammelsberg, which has likewise the ratio of 1 : 3 : 7 : 5, but contains nearly four times as much lime as alkalies.

I have now to record another discovery of *Herschelite*, made last year by Mr. Brown's Geological Survey party, in the vesicular basalt from the shaft of the Ballarat and Clunes Gold Mining Company, Clunes. The mineral is here associated with *calcite*, *chabazite*, and sometimes *mesolite*, and occurs in two modifications:—1. In very thin hexagonal plates, with the basal edges replaced by very uneven planes of a hexagonal pyramid, similar to *p*, Fig. 14, of the Richmond *Herschelite*, but apparently more obtuse, and without any indication of a second pyramid. 2. In double hexagonal pyramids, quite similar to the Richmond crystals (Figs. 16 *a* and *b*). I observed one small nearly perfect double crystal of the form represented in Fig. 28, in which the small planes *n* of a hexagonal prism, truncating the lateral edges of pyramid *r*, are quite new. The terminal planes of the first modification are dull and roughish; the terminal points of the second one imperfect, and the pyramidal planes *p* show a flat re-entering angle, all as mentioned of the Richmond crystals; a tendency to a rosette-like grouping, as the latter show, is, however, entirely absent.

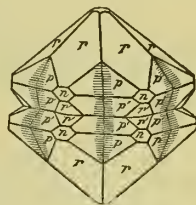


FIG. 28.

PHILLIPSITE.

Of this rather rare zeolite, I discovered, about two years ago, several good specimens in the heap of vesicular basalt from the deep prospecting shaft, sunk close to Degraives' mill, near Kyneton. It occurs in opaque white crystals, up to 3 lines in size, in cavities of the rock, and is generally associated with fine, nearly transparent crystals of *chabazite*. The characteristic cruciform shape of the crystals is very plain, and exactly resembles the common form of *harmatome* from St. Andreasberg. A qualitative analysis by Mr. Newbery proved, however, the entire absence of *baryta*, and presence, in some quantity, of lime instead, the chief point of distinction of *Phillipsite* from *harmatome*.

A second discovery of the mineral was made last year by Mr. Edw. Pittman, in Chambers' basalt quarries at Richmond. It is found there in druses and small aggregations of opaque-white, bluish-white, and faintly transparent, and, though more rarely, of quite colorless, nearly limpid crystals, from 1 to 3 lines in size, associated with *herschelite*, *analcime*, and *calcite*.

The cross-form of the compound crystals is far less apparent than on the specimens from Kyneton, the re-entering angles of the prisms being, indeed, very small. The crystals look, in fact, to the naked eye, like tetragonal octahedrons in combination with prismatic planes, not unlike some *apophyllite* (Fig. 29), and only the peculiar striation of the pyramidal planes, which I observed on different specimens, as shown in Figs. 29-32, indicates their compound nature, and the manner of twinning. Of not at all uncommon occurrence are very pretty double crosses of the form Fig. 30, a combination of three twinned crystals, perfect at both ends, penetrating each other at right-angles.

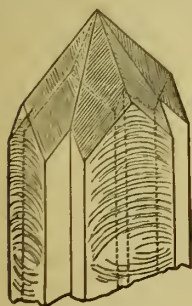


FIG. 29.

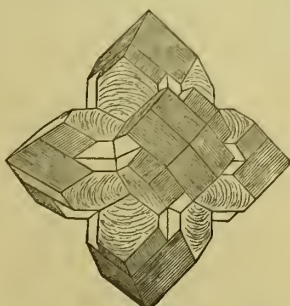


FIG. 30.



FIG. 31.



FIG. 32.

The chemical composition of this *Phillipsite* is, according to a quantitative analysis by Mr. Edw. Pittman, as follows:—

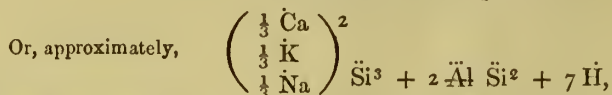
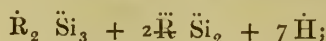
Si	Al	Ca	K	Na	H	
46.62	23.60	4.48	6.39	5.10	14.76	= 100.95

A comparison of this analysis with those of *Phillipsite* from European localities shows a considerable difference in the percentages of all components, with the exception of alumina; the large amount of *soda* contained in our mineral being especially striking.

The oxygen ratios for the different components I find as follows:—

S	Al	Ca	K	Na	H	Si	R	R	H
24.86	11.00	1.28	1.09	1.32	13.12	6.78	3	1	3.58
3.69					or for				

which, as regards $\ddot{\text{Si}}$ and $\ddot{\text{H}}$, is certainly not very satisfactory. The best course under the circumstances would perhaps be to take $7 : 3 : 1 : 3\frac{1}{2}$ as the ratios, which would give $3\frac{1}{2} \ddot{\text{Si}}$, $\ddot{\text{R}}$, $\ddot{\text{R}}$, $3\frac{1}{2} \ddot{\text{H}}$, and lead to the formula:—



with the following percentages:—

Si	Al	Ca	K	Na	H.
47.01	23.06	4.18	7.03	4.62	14.10 = 100.00.

HEULANDITE.

Mr. Rule found this *zeolite* lately in quartz from the Tiverton Reef, Maldon. It occurs in joints of the quartz in the same manner as it does at Lisle's and Lennox's Reefs, Mount Tarrangower (the only other two places known), viz., in thin drusy coatings of very small, semi-transparent, nearly colorless crystals of the form figured in my former description.

All the specimens kindly shown me by Mr. Rule exhibit thin tabular crystals of *heavy spar* grown upon the drusy coatings of this *zeolite*—a no doubt rare association.

HEAVY SPAR (SULPHATE OF BARYTA).

A new (the second) locality of occurrence of this mineral discovered by Mr. Rule is, as just mentioned, the Tiverton Reef, Maldon. Solitary, thin, blade-like crystals, up to $\frac{1}{2}$ inch in length, and $\frac{1}{4}$ inch broad, or aggregations of a number of such thin blades, lie flat upon a drusy coating of *heulandite* covering quartz. The crystals are mostly quite colorless, transparent, and perfectly developed all round, the most modified form being that shown in Fig. 33. A spectrum analysis, kindly conducted by Mr. Ellery, showed but a very faint trace of strontia.

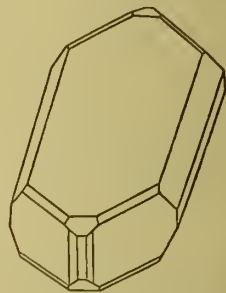


Fig. 33.

SELENITE, GYPSUM (SULPHATE OF LIME).

To the numerous localities given for this mineral in my former description may be added Schnapper Point, where it occurs frequently in thin seams, and in rather imperfect solitary crystals, some above 6 inches in length, and 1 inch thick, in the blue tertiary clay along the coast. It has also been observed in lenticular crystals and drusy coatings in the stiff bluish surface clay of Spring Plains. (Geological Survey $\frac{1}{4}$ -sheet, 13 N.E.)

MIRABILITE, GLAUBER SALT (SULPHATE OF SODA).

This salt occurs, according to Mr. Norman Taylor, in fine acicular efflorescences and powdery crusts on the walls of the prospectors tunnel at Barfold or Mitchell's diggings. (Geological Survey $\frac{1}{4}$ -sheet, 13 S.E.) The tunnel is driven in a white, soft, fine-grained sandstone.

BROWN SPAR.

At a recent visit to Woods' Point I recognized finely crystallized specimens of this mineral in the collection of Mr. Bailey, manager of the South Morning Star Hill Company. It occurs associated with *rock crystal* and sometimes *iron pyrites* in fine druses, lying hollows and cracks of the auriferous quartz veins traversing the massive, more or less decomposed, diorite dyke of the Morning Star Hill. Its origin is therefore no doubt mainly due to the decomposition of the *hornblende* component of the diorite, whilst from that of the *felspathic* one (*oligoclase*) resulted a white clayey mineral (*kaolinite*) composed of fine pearly scales, that generally fills the druse cavities of the reefs, covering the other minerals. The crystals of the *Brown Spar* are from $\frac{1}{8}$ to $\frac{1}{2}$ inch in diameter, of yellowish-white color, subtransparent, and present all the same form, viz., the obtuse cleavage rhombohedron, the planes quite even and showing a faint pearly lustre, in combination with the terminal plane, which is generally large, and always dull and uneven. Before the blowpipe pieces of the mineral strongly decrepitate, the powder turns brownish-black, but does not become magnetic—a proof of there being but little iron present. It is hardly touched by cold acids, but dissolves quickly with strong effervescence in hot muriatic acid, the solution reacting strongly for *lime* and *magnesia*.

Specimens of cellular quartz with vein-like aggregations of *Brown Spar* in yellowish-brown saddle-shaped rhombohedrons, planes quite dull and rough, have been recently found by Mr. Ferd. Kayser in the New Chum Reef, Sandhurst.

DOLOMITE (MAGNESIAN LIMESTONE).

Under this designation would, according to a quantitative analysis by Mr. Cosmo Newbery, properly come a band of very hard, so-called "*cherty limestone*" that occurs with brown *hematite* and *quartzite* underneath the basalt, east of Broadmeadows, on the Moonee Ponds Creek. The analysis shows its composition to be as follows:—

Ca C	...	...	...	...	...	54.974
Mg C	...	...	...	...	...	39.007
Fe ...	...	...	...	...	...	1.476
Si Clay, &c. }	...	...	...	...	...	4.467
						99.924

Trials were at one time made to burn this stone for building material, but gave no favorable results. In the bed of the creek, below the outcrop of the band, occurs a thin deposit of a similar hard rock that encloses *truncatella*, and is most likely derived from the former.

CALCITE.

The rarity of this mineral throughout Victoria generally, and more particularly in the auriferous lodes of the goldfields, renders it perhaps of some interest to notice that in Campbell's Reef, Moyston (Ararat Mining District), it occurs in strong, irregular veins and patches, sometimes impregnated with specks of *galena* and crystals of *iron pyrites* (generally cubes and pentagonal dodecahedrons). *Gold* has, however, not as yet been seen in this manner,* nor have crystallized specimens of the *Calcite* come under my notice. *Calcite* is also occasionally found in thin opaque-white veins in the quartz reefs traversing the dyke of the Morning Star Hill and that of the Rose, Thistle, and Shamrock Company's lease, Wood's Point.

In the basaltic lavas it is not by far so abundant as *arragonite*. To the localities of occurrence mentioned in the Exhibition essay of 1867 we can, however, add the basalts of Richmond and Clunes, in which generally light honey-yellow, small, acute rhombohedrons—at the former place often aggregated to club-like shapes—are found associated with the rare species of *zeolites* previously described.

Another new locality for *Calcite*, in veins from 1 to 2 feet thick, is in the carbonaceous rocks along their junction with the older basalt, at the Moe Swamp, about six miles S.E. of Westbury.

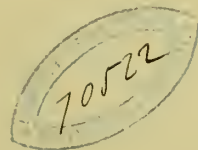
* It may here not be out of place to remark that most of the rich quartz reefs of Gympie, Queensland, contain abundance of *Calcite* in strong veins and patches, often richly impregnated with *gold*. A fine specimen from there, in my possession, shows, besides solitary hackly grains, actual veins of largish *gold* specks irregularly distributed through white opaque *Calcite*.

✓ 1871.
—
VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1870.



PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

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MEMORANDUM.

The MINERAL STATISTICS for 1870 have been prepared somewhat earlier than usual.

They contain as complete an account as can be conveyed by tables and figures of the results of the labors of the miners for the past twelve months ; and, having regard to the difficulties occasioned by floods and rough weather which the miners have had to contend with, they are not only not disheartening but encouraging.

I have every confidence that the alterations lately made in the Regulations relating to Mining Leases will be productive of benefit.

The new Regulations will be administered with care and caution, and with due regard to the interests of those who have expended their capital in mining ventures ; but rigorously in all cases where attempts are made to monopolize tracts of land for merely speculative purposes.

ANGUS MACKAY,
Minister of Mines.

Office of Mines,
Melbourne, 28th February 1871.

MINERAL STATISTICS, 1870.

MINE-OWNERS and miners throughout the colony have, as in former years, freely communicated information respecting the results of their operations, and perhaps in no other part of the world is the same willingness in furnishing returns shown by those engaged in mining pursuits as in this colony.

On giving a promise that the figures furnished by them shall be massed with others, and used only for public purposes, they, with rare exceptions, unhesitatingly place their books before the officers of the Department, if required, and some of them take trouble to bring out the results in such a shape as to admit of being filled into the tables at once.

Bank managers and gold buyers, in like manner, thus study to advance the public interests, and to them the Mining Department is greatly indebted for much valuable information.

The Mining Surveyors and Mining Registrars have exerted themselves in a commendable spirit during the past year. The form in which their returns are prepared enables the observer, at a glance, to see whether there is a discrepancy calling for explanation, and thus the officers themselves more easily use those checks which are so necessary in dealing with statistics relating to mining operations.

GOLD.

The returns furnished by the Honorable the Commissioner of Trade and Customs show that the quantities of gold exported in the years 1869 and 1870 were as follows :—

		1869.			1870.	
		ozs.	dwt.		ozs.	dwt.
Quarter ending 31st March	...	354,514	3	...	357,084	5
„ „ 30th June	...	324,377	15	...	309,415	10
„ „ 30th September	...	332,964	18	...	272,105	1
„ „ 31st December	...	328,981	12	...	284,193	7
		<hr/>			<hr/>	
Totals	...	1,340,838	8	...	1,222,798	3
		<hr/>			<hr/>	

This decrease in the exports—118,040 ozs. 5 dwts.—large as it is, is not so large as might have been expected. In 1869 the decrease, as compared with 1868, was 316,659 ozs. 12 dwts.

The damage done to claims and mining plant by the heavy and unprecedented floods which occurred on the goldfields several times in the year 1870, the interruption thus caused to mining operations, the decrease in the number of miners, and the falling off in the yield of gold from several of the deeper alluvial mines, are sufficient to account for a large decrease in the exports.

The quantities of gold purchased by bank managers and gold buyers on the goldfields were as follows :—

	1869.				1870.			
	Alluvial Workings.		Quartz Veins.		Alluvial Workings.		Quartz Veins.	
	ozs.	dwts.	ozs.	dwts.	ozs.	dwts.	ozs.	dwts.
Quarter ending 31st March ...	216,343	14	125,372	12	186,695	9	129,191	8
„ „ 30th June ...	249,096	4	163,020	18	173,208	15	135,664	0
„ „ 30th September ...	236,387	19	159,649	11	162,118	1	146,239	17
„ „ 31st December ...	232,254	19	162,631	11	196,707	3	174,480	13
Totals ...	934,082	16	610,674	12	718,729	8	585,575	18

According to these figures it would appear that the produce of alluvial gold was less in 1870, by 215,353 ozs. 8 dwts., than in 1869, and that the falling off in the quantity of gold got from quartz veins was 25,098 ozs. 14 dwts.

Comparing the quantities of gold got in 1869 and 1870 from the crushing and treatment of certain parcels of quartz and vein-stuffs, as furnished to the Mining Surveyors and Registrars (which are not the total quantities obtained, see Tables 20, 22, and 24), it is found that the falling off in 1870 is 16,989 ozs. 17 dwts. 7 grs. It is therefore probable that the gold got from quartz veins as given by the banks and gold buyers represents very nearly the total produce. It is not practicable at present to apply a similar check to the estimates of the produce of gold from alluviums.

The managers of the several banks in Melbourne have been good enough to furnish the Department with returns of the quantities of gold purchased during the year 1870, and the total is 1,244,910 ozs. 16 dwts. 20 grs.

Number of miners employed.

The number of miners employed in getting gold was, on the 31st December 1870, 59,247, less by 4,540 than on the 31st December 1869. Taking the mean numbers for the four quarters of each year, the figures stand as follows :—

			Alluvial Miners.		Quartz Miners.		Total.
1869	...	...	51,024	...	16,564	...	67,588
1870	...	...	43,879	...	16,486	...	60,365

There was therefore a decrease in the number of alluvial miners of 7145, and in the number of quartz miners of 78.

Chinese miners.

The number of Chinese employed in 1870 is less by 696 than the number employed in 1869. The numbers in the several districts are but little different in 1870 from what they were in the previous year.

Average earnings of miners.

The average earnings of the miners in 1869 and 1870 were as follows :—

YEAR.		ALLUVIAL MINERS.			QUARTZ MINERS.				
		Numbers.	Earnings per Man per annum.			Numbers.	Earnings per Man per annum.		
			£	s.	d.		£	s.	d.
1869	...	51,024	63	11	2½	16,564	128	0	0¾
1870	...	43,879	61	8	5¾	16,486	133	3	11¾

Dividing the value of the gold exported amongst the mean number of miners employed during the year 1870, the average earnings per man for the year are £81 os. 6·46d. In 1869 the average was £79 7s. 0·87d.

The number of steam-engines and stamp-heads employed in 1869 and 1870 is as follows:—

YEAR.	ALLUVIAL.		QUARTZ.		
	Number.	Aggregate Horse-power.	Number.	Aggregate Horse-power.	Number of Stamp-heads.
1869 ...	408	9,650	677	12,796	6,352*
1870 ...	403	9,915	711	13,572	6,522*

* Inclusive of stamp-heads used in crushing quartz and other vein-stuff moved by other power than steam.

Table No. 10 and the note appended to it give full information respecting the number of the several kinds of machinery used in getting gold from both alluviums and quartz veins, and also the increase or decrease in each district.

The estimated total value of the machinery and mining plant employed on the goldfields, on the 31st December 1870, was £2,128,896, showing an increase as compared with the estimate for 1869 of £20,227.

The estimated value in each year for the several districts was as follows:—

DISTRICTS.				1869.	1870.
				£	£
Ballarat	...	...	...	585,753	565,398
Beechworth	...	...	...	304,701	303,152
Sandhurst	...	...	...	426,338	435,645
Maryborough	...	...	...	284,882	294,305
Castlemaine	...	...	...	262,860	276,258
Ararat	...	...	...	115,296	108,818
Gippsland	...	...	...	128,839	145,320

There is a decrease in the mining districts of Ballarat, Beechworth, and Ararat, and an increase in the other districts.

There is a considerable increase in the number of distinct quartz reefs, and in the extent of auriferous land opened up by the miners. The figures for the two years stand thus:—

		Number of distinct Quartz Reefs.		Extent in square miles of Auriferous Land.
1869	...	2,881	...	905 $\frac{3}{4}$
1870	...	3,037	...	938 $\frac{1}{2}$

The area held as "claims" under the bye-laws of the several Mining Boards, on the 31st December 1870, was 67,341 a. 2 r. 0 p., and of this area there were lying unworked, being protected from encroachment by registration or exemption certificates, 10,949 a. 3 r. 4 p. The total area held as "claims" in 1869 was 84,196 a. 3 r. 29 p, showing a decrease of 16,855 a. 1 r. 29 p. There is also a large decrease in the area held under gold-mining leases. On the 31st December 1869 there were 1804 leases in force, for an area of 44,843 a. 1 r. 13 p.; during the year 1870 there were issued 737 leases, for an area of 15,363 a. 0 r. 13 $\frac{3}{5}$ p.; there were declared void 814 leases for 31,871 a. 3 r. 38 p.; there were surrendered 89 leases, for 1,520 a. 2 r. 0 p.; and the term expired of 23 leases, for 162 a. 1 r. 23 p.; consequently there were in force, on the 31st December 1870, 1615 leases, for 26,651 a. 2 r. 5 $\frac{3}{5}$ p.

Labor employed
on lands leased.

The following table shows the labor covenants and the number of men employed on 1510 of the leases in force on the 31st December 1870 :—

DISTRICTS.	Number of Leases.	Area.			Number of Men, as per Covenant.	Number of Men actually employed, as per Returns.
		A.	R.	P.		
Ballarat	104	5,463	3	12	4,139	2,631
Beechworth	189	3,641	1	0	2,379	1,413
Sandhurst	536	4,103	3	24	3,614	3,134
Maryborough	333	7,250	1	14	4,493	1,192
Castlemaine	181	2,550	3	24	1,864	1,040
Ararat	93	1,257	3	24	841	594
Gippsland	74	1,120	1	19	728	363
Totals	1,510	25,388	1	37	18,058	10,367

Revenue derived
from the gold-
fields.

The following is a statement, compiled from the Treasury returns, of the revenue derived directly from the goldfields and mineral lands (exclusive of fees, fines, and forfeitures), during the years 1869 and 1870 :—

	1869.				1870.		
	£	s.	d.		£	s.	d.
Miners' Rights	13,466	0	0	...	9,934	0	0
Business Licenses	3,915	0	0	...	3,206	12	6
Leases of Auriferous and Mineral Lands	23,644	11	11	...	24,307	7	0
Water-Right and Searching Licenses ...	917	0	6	...	1,046	10	0
	£41,942	12	5	...	£38,494	9	6

value of claims.

The value of "claims" in the several mining districts, as estimated by the Mining Surveyors and Mining Registrars, on the 31st December in the years 1869 and 1870, is shown in the following table :—

MINING DISTRICTS.	ESTIMATED VALUE OF CLAIMS.	
	31st December 1869.	31st December 1870.
	£	£
Ballarat	2,111,569	1,021,686
Beechworth	1,038,320	816,900
Sandhurst	2,299,305	2,567,840
Maryborough	1,028,284	790,870
Castlemaine	833,396	1,085,826
Ararat	729,100	1,022,850
Gippsland	499,267	378,206
Totals	8,539,241	7,684,178

Yield of gold
from quartz, &c.

The information collected by the Mining Surveyors and Mining Registrars, from millowners and others, relative to the yield of gold from certain parcels of quartz crushed, shows that 908,526 $\frac{17}{10}$ tons of quartz have produced 448,683 ozs. 16 dwts. 10 grs. of gold, or at the rate of 9 dwts. 21·05 grs. per ton.

Up to the 31st December 1870 information has been received respecting the yield of gold from 7,603,619 $\frac{1}{10}$ tons of quartz, and the average per ton is 11 dwts. 4·57 grs.

The following table shows the average yield per ton for each district for the past eleven years :—

DISTRICT.	1860.	1861.	1862.	1863.	1864.	1865.	1866.	1867.	1868.	1869.	1870.
	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.	dwts. grs.
Ballarat ...	12 13	8 0	5 15	4 22	4 16 ⁴	5 3'9	4 21	6 21'7	7 20'19	8 3'91	6 4'66
Beechworth ...	74 9	33 23	21 12	49 7	23 16 ⁴	27 10'3	18 3'7	12 19'2	13 21'27	11 19'30	10 1'72
Sandhurst ...	47 1	30 9	14 2	26 16	9 16'9	13 11'8	9 16'8	9 2'2	9 2'48	10 4'31	11 13'83
Maryborough	27 21	22 13	18 7	13 9	12 5'8	10 22'1	11 7'3	10 6'2	9 23'75	9 16'93	8 9'52
Castlemaine...	22 11	16 19	15 7	14 3	13 23'7	13 4'9	13 18'5	11 12'4	8 23'11	9 2'78	10 12'24
Ararat ...	31 15	19 13	14 6	10 5	11 4'4	13 16'7	15 11'9	17 17'1	16 4'50	12 4'53	12 11'63
Gippsland ...	...	...	...	...	...	...	...	27 5'6	30 3'19	29 11'79	25 5'17

During the year 1870 returns have been obtained relative to the yield of gold from the crushing of certain parcels of quartz tailings, cement, mullock, &c., and they show that 163,972 $\frac{3}{4}$ tons have yielded 22,133 ozs. 17 dwts. 19 grs. of gold—or an average of 2 dwts. 16'79 grs. per ton. From 1864 to 1870, inclusive, 1,333,827 tons 7 cwt. of quartz tailings, &c., were crushed, and yielded 3 dwts. 21'01 grs. of gold per ton.

Table No. 24 shows the average yield of gold from certain parcels of pyrites and blanketings operated on in 1870, from which it appears that 3180 $\frac{1}{4}$ tons gave 8503 ozs. 7 dwts. 13 grs. of gold, or an average of 2 ozs. 13 dwts. 11'42 grs. per ton.

The prices paid per ton for crushing quartz and cement are given in Table No. 26. The highest price, 30s. per ton, is charged in some parts of the Gippsland district ; and the lowest, 2s. 6d. per ton, in the Castlemaine district.

Table No. 49 is instructive and very valuable. The Mining Surveyors and Mining Registrars' estimates of the quantities of timber used in the several districts show that no less than £444,886 were paid by the miners for timber for their mines and for firewood during the year 1870. This enormous outlay is rendered necessary partly because of the carelessness of wood-cutters and others who invade the forests, and in felling trees destroy nearly as much as they take away, and mainly because no efforts have been made to replace the native trees by other quick-growing foreign trees. Year after year attention has been directed to this matter. If steps be not taken promptly to plant the large areas of ground lying adjacent to the principal mining centres, great loss to the country will follow, as surely as the wilful extravagance of an individual leads to poverty. Those who have watched for ten or twelve years the rapid growth of many foreign trees in this colony know how cheaply and easily the forest lands could be made to yield an abundance of timber for firewood, and a large quantity suitable for laths, slabs, &c. The Report of the Commission appointed to enquire into the condition of the State Forests, dated the 19th December 1867, should now receive the attention of Local Bodies, if any attempts are to be made to prevent the stoppage of works on many extensive *leads* where the profits are at present barely sufficient to induce the mining capitalists to continue their operations.

The total length of the water races in use in the colony for gold mining purposes was, on the 31st December 1870, 1939 m. 19 ch. ; and the approximate cost was £281,596, or at the rate of £145 4s. 2 $\frac{1}{4}$ d. per mile.

The water-right licenses in force on the 31st December 1870 were 181. The total area occupied under licenses was 1628 a. 2 r. 20 $\frac{1}{2}$ p. The total length of races was 462 m. 3 $\frac{1}{10}$ ch. ; the maximum quantity of water to be diverted per diem 212,776,428 gallons ; the aggregate area held for reservoirs 368 a. 1 r. 13 p. ; and the capacity of the reservoirs 650,706,107 gallons.

Companies regis-
tered.

The number of mining companies registered in the several Courts of Mines during the year 1870 was 499, the number of shares was 8,443,717, and the nominal capital £6,021,517. From returns forwarded by the clerks of the Courts of Mines, it appears that twenty-three companies were wound up in 1870, with 70,210 shares and a nominal capital of £289,040.

Wages paid for
labor.

Table No. 47 shows the rates of wages paid for labor in the several mining divisions of the colony. Pitmen were paid from £2 to £5 10s. per week, and miners from £1 16s. to £3 per week. The wages are high in all the districts.

New goldfields.

The Goldfields Reward Board recommended that the following sums should be paid as rewards for the discovery of new goldfields during the year 1870 :—

	£
Spring Creek, near Heathcote (in addition to the sum of £300 formerly awarded) ...	100
No. 2 Creek, Avoca Division	100
Nine-mile Creek, Waranga Division	50

Examination of
Mining Sur-
veyors.

During the first quarter four gentlemen presented themselves for examination in surveying, &c., and three passed ; during the second quarter six appeared, and two passed ; during the third quarter there were six candidates, of whom three passed ; and at the last examination three presented themselves, of whom two passed.

It was stated in the last Report that there was a prospect at that time of the proposal for the delivery of lectures on subjects connected with mining being favorably entertained. Up to the present time, however, no reply has been made to the letters asking for the use of a room. The lecturers offered their services gratuitously, and on the distinct understanding that as soon as the foundations of a mining school were laid, and other lecturers could be found to take their places, they would resign. The common notion that practical mining can and ought to be taught in a school of mines, and that the instruction that would be given in such a school should stand in lieu of practice in mining works, is, it is needless to say, erroneous. Only in a mine and in the midst of mining works can the student obtain that technical knowledge without which all that he can learn in a mining school is valueless to him in his profession. It was intended to add to the knowledge of the practical miner, and to encourage him to study those branches of science which are almost indispensable aids to practice, but which cannot stand as substitutes for it. A number of students would have attended the lectures if a room had been provided, and undoubtedly some good would have been effected.

The institution of a mining school at Ballarat, and the proposal to establish a school at Sandhurst, show that the miners are anxious to obtain information, if it be given in such a form and in such a way as to lead to a practical result, as, for instance, the issue of a diploma or a certificate of competence after examination. Popular lectures on branches of science may attract for a while a little attention ; but unless the subjects embrace a tolerably large field, and the attendance on such lectures leads to something more than the acquisition of a mere smattering of the sciences taught, the object of the institution will be defeated. The lecturers who offered their services gave the outlines of the courses of lectures they proposed to deliver, they developed their plan, and they showed in what way it might be beneficial ; and it is surely a matter for regret that a scheme which engaged their earnest attention should have been set aside. The experiment could have done no harm ; and the cost and the labor, and the anxiety, would have been borne by the lecturers.

When, some years ago, the scheme here advocated was first proposed, it was stated that any sanguine anticipations of great success, and any strong hopes that

immediate beneficial results would follow, would, in all likelihood, be disappointed. Mining schools in Europe have done much good ; but the scholars have not taken the places of practical men without scientific training, to whom, invariably, the control of all the larger mines and mining and reducing works is entrusted.

In discussing the plan for the education of mining engineers—proposed by Professor Young, Professor of Natural History in the University of Glasgow, who aims at high theoretical efficiency, and who would have each candidate for the title of mining engineer to submit himself for examination to “a court of examiners, with position and powers secured by Act of Parliament,” and the remarks, in reference to such proposals, of Mr. Ralph Moore, the Government Inspector of Coal Mines, who urges the necessity of a severe practical training in the mines—the English *Mining Journal*, in its numbers just come to hand, treats the subject fairly ; and, while expressing itself as strongly in favor of periodical examinations, which would test the educational acquirements and the professional skill of mining engineers, is at the same time opposed to any system which would substitute teaching in a school for practice in a mine.

The aims suggested by the English *Mining Journal* are those precisely which all along have been advocated by the gentlemen who offered their services as lecturers in Melbourne.

The groups of minerals, rocks, and fossils added to the collection of the Mining Department during the last year number more than eight hundred. Collection of minerals, &c.

Efforts have been made for some time past to establish exchanges of minerals, &c., with the leading scientific men of other countries ; and the colony is now likely to receive a rich reward for the collections forwarded to foreign countries.

The Honorable C. P. Layard, the Government Agent for the Western Province of Ceylon, has forwarded three boxes containing gems, gem-stones, and the rocks which accompany them, as well as magnificent specimens of plumbago.

From Cornwall, Messrs. R. and H. Boyns, of St. Just, have forwarded, through Mr. Wm. Nicholas, a very fine and valuable collection of copper ores, tin ores, &c. The specimens—one hundred and thirty in number—consist principally of tin, copper, and iron ores, and granite and killas. They were gathered for the express purpose of illustrating the manner in which the various ores occur in the lodes, and to show the character of the rocks which tin and copper lodes traverse. The samples of reduced ores were selected in order to illustrate the changes which they undergo during the several operations of reduction and cleansing. There are several miscellaneous specimens of rare ores, and others, although less important commercially, interesting and attractive to the eye. The whole of the samples were collected from the mines of the St. Just mining district, in Cornwall, by Captain Richard Boyns, of Wheal Owles Tin mine, and Captain Henry Boyns, of Botallack Copper and Tin mine.

From Wales, Mr. J. W. H. Williams has caused to be collected and forwarded a complete suite of specimens illustrating the modes of occurrence of gold in the Principality.

A large collection of specimens was sent from California, but, through some mistake made by the shipping agents, the box has not yet been delivered.

Cavaliere Giuseppe Biagi, Consul General for Italy, through whom a good collection of our auriferous rocks, and fac-similes of nuggets have been forwarded to

the Florentine Museum, has received assurances of cordial help from scientific authorities in Italy ; and, as throwing light on the character of our igneous and volcanic rocks as compared with those of the south of Europe, their specimens will be of surpassing interest.

Through the kindness of the ex-Consul for the United States, the Department has been put in communication with the Directors of the Museum established in Washington ; and, in return for specimens lately forwarded by the Department, they will send others illustrative of the geology of their coal and petroleum mines.

Mr. E. J. Dunn, lately of Beechworth, who is now on his way to the Cape of Good Hope, has undertaken to procure a collection of minerals intended to show the character of the rocks in the diamondiferous districts of that colony, with explanatory notes. From his zeal and known ability we may expect much that will assist the miner in exploring the districts in this colony and in New South Wales where, up to the present time, the search for diamonds has, if successful in one sense, not proved remunerative.

From the several Australian colonies the Department has lately received many cases of specimens. Through Mr. A. J. Skene, the Surveyor-General of Victoria, a large and fine collection of copper ores has been obtained from South Australia ; Mr. N. Bartley, of Queensland, has sent numerous rocks, fossils, and minerals ; from New South Wales interesting specimens have been obtained, and Mr. H. A. Thompson has promised to render help in this direction ; and the Honorable F. P. Barlee, Colonial Secretary, and the Government Geologist, Mr. H. Y. L. Brown, have promised contributions from Western Australia.

Mr. B. Cowderoy has presented a collection of fossil plants from the carboniferous rocks of England, and rocks and minerals.

The large number of gentlemen who have undertaken to collect for the Department in Victoria have been unusually active during the past year, and many very valuable contributions have been made. The collection of fossil leaves and seed-vessels obtained from the *leads* at Haddon ; the leaves, stems, and seed-vessels got at Smeaton ; the fossil leaves from mud shales intercalated between the older and newer basalts at Malmsbury ; and the fossils from the lignite beds at Lal-Lal—all of tertiary or post-tertiary age—have been placed in the hands of Dr. Von Mueller, C.M.G., for examination, and the first part of his report on these interesting remains will be ready for publication, it is hoped, early in April next.

The principal mining managers on the goldfields have cheerfully co-operated with the Department in the endeavor to obtain accurate observations of the temperature of the air and water in the mines at various depths, with the view of comparing the results with those obtained by J. Henwood, Esq., F.R.S., in the mines of Cornwall ; and the returns received up to the present time show an amount of zeal, and attention to minute details, which are praiseworthy.

A careful record is kept of all the nuggets found on the goldfields, and the wardens and mining surveyors and registrars take much trouble in furnishing information respecting them. Fac-similes of the larger nuggets are made when practicable, and invariably the managers of the banks in Melbourne cheerfully afford facilities for these being made with accuracy. These fac-similes will hereafter be regarded with much interest by men of science.

The following statement shows the amount of business transacted in the Mining Department during the years 1869 and 1870 :—

Business of the Mining Department.

	1869.	1870.
Number of letters received	19,168	20,704
Number of returns received	4,083	6,122
Number of accounts received	1,132	3,950
Number of accounts passed	1,066	3,900
Number of schedules passed (in triplicate)	618	621
Correspondence referred from other departments (inwards)	4,469	5,178
References (outwards)	3,644	4,458
Number of letters outwards	24,831	26,950
Applications lodged for gold-mining leases	1,467	485
Applications lodged for mineral leases	27	14
Applications lodged for water-right licenses	25	14
Total number of applications for leases and licenses dealt with (granted, refused, or abandoned)	1,534	632

Mr. Richard Francis, the chief clerk, reports, in reference to the tables showing the attendance of officers during the past year, that “the aggregate amount of over-time was 5205 hours, equivalent to one man’s work for nearly three years.”

Attendance of officers.

METALS AND MINERALS OTHER THAN GOLD.

Silver.—No silver ore was raised during the year.

Tin.—There were exported during the year 146 tons 15 cwt. of tin ore, and 1680 lbs. of tin.

Copper.—There were 11 tons of copper ore exported. None is reported as having been raised during the year 1870.

Antimony.—There were raised 1661 tons 3 cwt. of antimony ores, and there were exported 1052 tons 16 cwt. of antimony ores, 64 tons 8 cwt. of regulus, and 171 tons 9 cwt. of antimony.

Lead.—There were raised 100 tons of lead ore during the year.

Coal and Lignite —There were raised during the year 100 tons of coal and 532 tons of lignite.

Flags and Slates.—There were raised 2650 tons and 160 square yards of flagging, and of slates 10,000.

Further information relative to metals and minerals other than gold is given in the tables and appendices.

The number of miners employed during the quarter ending 31st December 1870 in mining for metals and minerals other than gold was as follows :—

MINING DISTRICTS.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tin Miners.	Antimony Miners.	Lead Miners.	Coal Miners.	Lignite Miners.	Slate and Flag Miners.	Grand Totals.
Ballarat	Gordon Subdivision	...	...	...	...	3	...	3
	Steiglitz Subdivision	...	...	...	...	20	...	20
Beechworth	Beechworth Division	133	...	...	...	...	...	133
Sandhurst	Heathcote Division and Waranga South Subdivision	...	10	...	...	...	...	10
	Castlemaine Division	...	...	...	...	...	42	42
Castlemaine	Taradale and Kyncton Subdivision	...	...	...	...	...	2	2
	St. Andrew's Division	...	25	...	6	...	1	32
Ararat	Pleasant Creek Division	...	...	...	...	...	2	2
Gippsland	Mitchell River Division	...	...	4	...	...	...	4
Totals		133	35	4	6	23	47	248

The following is an estimate of the Metals and Minerals raised in the colony from the first discovery of the goldfields to the 31st December 1870:—

Gold.—Quantity exported from the date of the first discovery to the 31st

December 1870, 39,399,328 ozs. 6 dwts.,* at £4 per oz. ... £157,597,313

Silver.—Ore raised, 11,348 tons.

Produce of silver from ore treated, 18,353 ozs. 8 dwt., at 5s. 6d.

per oz. ... 5,047

Tin.—Ore exported, 2,601 tons 2 cwt. ... £192,936

„ 92 tons 9 cwt., at £70 per ton ... 6,471

„ 177 tons 10 cwt., at £52 10s. per ton ... 9,318

„ 269 tons 1 cwt. ... 17,551

„ 146 tons 15 cwt. ... 9,524

Tin exported, say 3 tons 12 cwt. 3 qrs. 12 lbs., at £140 per ton 510

„ 7 tons 16 cwt. ... 729

„ 14 cwt., at £140 per ton ... 98

„ 15 cwt. ... 157

237,294

Copper.—Ores raised, about 855 tons.

Smelted, 31 tons 7 cwt., at £112 per ton ... £3,511

Regulus, 70 tons 16 cwt. ... 1,969

Rough copper, 10½ tons ... 320

5,800

Antimony.—Ore raised, 2,955 tons 15 cwt. 26 lbs. ... £32,102

„ 435 tons, at £6 per ton ... 2,610

„ 272 tons, at £9 per ton ... 2,448

„ 510 tons, at £7 per ton ... 3,570

„ 199 tons, at £4 per ton ... 796

„ 1,661 tons 3 cwt. ... 13,669

55,195

Lead.—Ore raised, 100 tons at £6 per ton ... 600

Coal.—2,033 tons, at £1 10s. per ton ... 3,049

Lignite.—997 tons, at 17s. 6d. per ton ... 872

Kaolin.—1,757 tons, at £4 per ton ... 7,028

Flagging.—78,660 square yards ... £22,370

3,918 tons ... 6,206

28,576

Slates.—11,000 at £8 per 1,000 ... £88

160 tons, at £4 per ton ... 640

728

Magnesite.—6½ tons, at £2 per ton ... 12

Diamonds.—About 89 carats, at an average of, say, £1 per carat ... 89

Sapphires.—Numbers cannot be estimated, say ... 150

Total ... £157,941,753

The prices of the several ores, &c., have been obtained from persons best acquainted with the market value of them.

R. BROUGH SMYTH,

Secretary for Mines.

Office of Mines,

Melbourne, 18th February 1871.

* From returns furnished by the Honorable the Commissioner of Trade and Customs, and inclusive of 1,267,241 ozs., which, according to the Registrar-General's tables, were produced in Victoria in 1852-5, but passed through the Customs of New South Wales, Tasmania, and South Australia, and not recorded in Victorian tables. The quantities used and manufactured in the colony cannot be estimated.

TABLES.

No. 1.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1870.

Quarter.	BALLARAT.			BEECHWORTH.			SANDHURST.			MARYBOROUGH.		
	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.
First Quarter, ending March 31st...	11,931	3,372	15,303	7,786	1,901	9,687	4,950	4,934	9,884	10,290	2,184	12,474
Second Quarter, ending June 30th	11,403	3,305	14,708	7,563	1,905	9,468	4,755	4,722	9,477	9,720	2,379	12,099
Third Quarter, ending Sept. 30th	11,178	3,302	14,480	7,371	1,961	9,332	4,388	4,899	9,287	10,076	2,354	12,430
Fourth Quarter, ending Dec. 31st	11,278	3,097	14,375	7,114	2,070	9,184	4,101	4,893	8,994	10,279	1,917	12,196

Quarter.	CASTLEMAINE.			ARARAT.			GIPPSLAND.			GRAND TOTALS.		
	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.	Alluvial	Quartz.	Totals.
First Quarter, ending March 31st...	6,281	2,312	8,593	2,185	1,108	3,293	2,177	795	2,972	45,600	16,606	62,206
Second Quarter, ending June 30th	6,109	2,409	8,518	2,131	902	3,033	2,024	940	2,964	43,705	16,562	60,267
Third Quarter, ending Sept. 30th	5,833	2,536	8,369	2,061	811	2,872	2,010	962	2,972	42,917	16,825	59,742
Fourth Quarter, ending Dec. 31st	6,255	2,540	8,795	2,055	653	2,708	2,214	781	2,995	43,296	15,951	59,247

NOTE.—The mean number of miners employed dnring the year was 60,365; and the total quantity of gold exported 1,222,798 ozs., which, at £4 per oz., gives £81 os. 6'46d. per man per annum. The rate per man per annum for 1869 was £79 7s. 0'87d.; for 1868, £104 18s. 8'75d.; for 1867, £87 1s. 6'91d.; for 1866, £80 8s. 3'87d.; for 1865, £74 4s. 2'09d.; for 1864, £74 1s. 9'29d.; for 1863, £70 9s. 0'42d.; for 1862, £67 14s. 5'11d.; for 1861, £74 15s. 11d.; and for 1860, £79 9s. 3'07d.

No. 2.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS during the Quarter ending 31st December 1870.

Mining Districts.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District	8,509	2,769	3,097	...	11,606	2,769	14,375
Beechworth District	3,510	3,604	2,038	32	5,548	3,636	9,184
Sandhurst District	3,239	862	4,893	...	8,132	862	8,994
Maryborough District	7,207	3,072	1,885	32	9,092	3,104	12,196
Castlemaine District	3,480	2,775	2,540	...	6,020	2,775	8,795
Ararat District	1,035	1,020	653	...	1,688	1,020	2,708
Gippsland District	1,301	913	781	...	2,082	913	2,995
Totals	28,281	15,015	15,887	64	44,168	15,079	59,247

No. 3.

NUMBER of MINERS employed in the Mining District of BALLARAT during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Central Division	3,497	480	528	...	4,025	480	4,505
Southern Division	909	715	157	...	1,066	715	1,781
Buninyong Division	1,190	250	300	...	1,490	250	1,740
Smythesdale Division	1,320	300	20	...	1,340	300	1,640
Creswick Division	950	400	850	...	1,800	400	2,200
Gordon Subdivision	33	14	232	...	265	14	279
Steiglitz Subdivision	280	200	520	...	800	200	1,000
Blackwood Division and Blue Mountain South Subdivision	330	410	490	...	820	410	1,230
Totals	8,509	2,769	3,097	...	11,606	2,769	14,375

No. 4.

NUMBER of MINERS employed in the Mining District of BEECHWORTH during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Division	1,143	960	115	...	1,258	960	2,218
Yaekandandah Division	490	560	300	...	790	560	1,350
Indigo Division	172	167	102	...	274	167	441
Buckland Division	178	1,299	498	...	676	1,299	1,975
Alexandra Subdivision	703	45	350	...	1,053	45	1,098
Maindample Subdivision	110	100	40	...	150	100	250
Benalla Subdivision ... ..	...	...	...	...	...	...	...
Gaffney's Creek Subdivision	91	38	124	28	215	66	281
Wood's Point Subdivision	192	12	242	...	434	12	446
Big River Subdivision	130	30	55	...	185	30	215
Mitta-mitta Division	230	240	12	4	242	244	486
Jamieson Subdivision	71	153	200	...	271	153	424
Totals	3,510	3,604	2,038	32	5,548	3,636	9,184

No. 5.

NUMBER of MINERS employed in the Mining District of SANDHURST during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Sandhurst Division	2,350	670	4,070	...	6,420	670	7,090
Kilmore Division	79	57	79	...	158	57	215
Heathcote Division and Waranga South Subdivision	490	40	410	...	900	40	940
Waranga North Subdivision	320	95	334	...	654	95	749
Totals	3,239	862	4,893	...	8,132	862	8,994

No. 6.

NUMBER of MINERS employed in the Mining District of MARYBOROUGH during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	2,145	400	655	...	2,800	400	3,200
Amherst Division	1,170	100	80	...	1,250	100	1,350
Avoca Subdivision	803	1,336	55	...	858	1,336	2,194
Dunolly and Tarnagulla Divisions	325	594	723	24	1,048	618	1,666
Korong Division	1,800	500	200	...	2,000	500	2,500
Redbank and St. Arnaud South Subdivisions	847	66	49	8	896	74	970
St. Arnaud North Subdivision	117	76	123	...	240	76	316
Totals	7,207	3,072	1,885	32	9,092	3,104	12,196

No. 7.

NUMBER of MINERS employed in the Mining District of CASTLEMAINE during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division	650	540	486	...	1,136	540	1,676
Fryer's Creek Division	1,140	1,158	290	...	1,430	1,158	2,588
Hepburn Division	826	436	684	...	1,510	436	1,946
Taradale and Kyneton Subdivision	256	258	382	...	638	258	896
Tarrangower Division	283	232	502	...	785	232	1,017
St. Andrew's Division	246	140	160	...	406	140	546
Blue Mountain North Subdivision	79	11	36	...	115	11	126
Totals	3,480	2,775	2,540	...	6,020	2,775	8,795

No. 8.

NUMBER of MINERS employed in the Mining District of ARARAT during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division	450	512	103	...	553	512	1,065
Pleasant Creek Division	80	170	550	...	630	170	800
Barkly Division	305	58	...	...	305	58	363
Raglan Division	200	280	...	...	200	280	480
Totals	1,035	1,020	653	...	1,688	1,020	2,708

No. 9.

NUMBER of MINERS employed in the Mining District of GIPPSLAND during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Omco Subdivision	177	373	...	...	177	373	550
Mitchell River and Boggy Creek Subdivisions	234	190	60	...	294	190	484
Crooked River Division	260	200	106	...	366	200	566
Jericho Division	204	90	58	...	262	90	352
Donnelly's Creek Division	96	10	29	...	125	10	135
Stringer's Creek Division	38	...	394	...	432	...	432
Russell's Creek Subdivision	120	...	75	...	195	...	195
Bendoc Subdivision	16	50	40	...	56	50	106
Tarwin Subdivision	156	...	19	...	175	...	175
Totals	1,301	913	781	...	2,082	913	2,995

No. 10.

SUMMARY.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the several MINING DISTRICTS during the Quarter ending 31st December 1870.

Mining Districts.		ALLUVIAL MINING.													
		Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring machines.
		Total Number.	Aggregate Horse-power.												
Ballarat District	...	216	6,484	255	38	257	81	17	1,644	...	74	2	8	18	6
Beechworth District	...	50	806	23	...	68	36	50	14,174	12	268	192	1	...	7
Sandhurst District	...	37	542	...	...	305	16	78	74	...	28	...	12	342	1
Maryborough District	...	69	1,560	63	...	410	78	55	111	...	153	3	84	62	5
Castlemaine District	...	22	393	6	...	449	30	70	742	...	213	11	138	128	1
Ararat District	...	9	130	4	...	75	15	6	142	...	25	...	26	58	...
Gippsland District	...	...	..	...	...	3	2	...	2,274	...	106	115	...	...	...
Totals	...	403	9,915	351	38	1,567	258	276	19,161	12	867	323	269	608	20

Mining Districts.		QUARTZ MINING.										Approximate Value of all Mining Plant in the District.
		Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.		
		Total Number.	Aggregate Horse-power.									
Ballarat District	...	136	3,314	11	1,241	19	...	48	12	3	£ 565,398	
Beechworth District	...	71	953	38	1,084	4	1	16	10	1	303,152	
Sandhurst District	...	161	2,742	2	1,444	3	...	228	267	1	435,645	
Maryborough District	...	116	2,308	...	757	...	...	114	76	1	294,305
Castlemaine District	...	146	2,515	3	1,098	3	2	169	206	1	276,258	
Ararat District	...	35	944	1	361	2	...	45	9	2	108,818	
Gippsland District	...	46	796	15	537	1	...	7	1	1	145,320	
Totals	...	711	13,572	70	6,522	32	3	627	581	10	2,128,896	

NOTE.

In the Ballarat District the machinery used in alluvial mining shows a decrease, as compared with the returns for 1869, of 13 steam puddling machines, 8 buddles, 171 sluices, toms, and sluice-boxes, 4 stamp-heads (crushing cement), 3 boring machines; and an increase of 134 horse-power, 8 horse puddling machines, 1 whip or pulley, 29 pumps, 1 quicksilver and compound cradle. In quartz mining there is a decrease of 6 steam-engines, 75 horse-power, 12 stamp-heads; and an increase of 9 buddles, 4 whims, 3 whips or pulleys, and 2 boring machines. The value of all mining plant in the district shows a decrease of £20,355.

In the Beechworth District the machinery used in alluvial mining shows an increase of 3 steam-engines and 54 horse-power, 6 steam puddling machines, 10 whims, 2 whips or pulleys, 20 water-wheels, 1 boring machine; and a decrease of 10 horse puddling machines, 420 sluices, toms, and sluice-boxes, 2 hydraulic hoses, and 7 pumps. In quartz mining there is an increase of 4 horse-power, 1 buddle, 1 boring machine; and a decrease of 10 stamp-heads, and 1 whip or pulley. The value of all mining plant in the district has decreased £1,549.

In the Sandhurst Mining District the machinery used in alluvial mining shows an increase of 2 steam-engines and 24 horse-power, 15 pumps, 6 quicksilver and compound cradles, 16 stamp-heads (crushing cement); and a decrease of 54 horse puddling machines, 6 whims, 33 whips or pulleys, 37 sluices, toms, and sluice-boxes. In quartz mining there is an increase of 11 steam-engines and 41 horse-power, 35 stamp-heads, 33 whims, 4 whips or pulleys; and a decrease of 1 buddle. The value of all mining plant in the district has increased £9,307.

In the Maryborough Mining District the machinery used in alluvial mining shows an increase of 6 steam-engines and 325 horse-power, 18 steam puddling machines, 4 whips or pulleys, 20 stamp-heads (crushing cement), 3 boring machines; and a decrease of 87 horse puddling machines, 13 whims, 88 sluices, toms, and sluice-boxes, 233 pumps, 1 water-wheel, and 6 quicksilver and compound cradles. In quartz mining there is an increase of 8 steam-engines and 357 horse-power, 15 stamp-heads, 13 whims, and 15 whips or pulleys. The value of all mining plant in the district has increased £9,423.

In the Castlemaine Mining District the machinery used in alluvial mining shows an increase of 6 whips or pulleys, 128 sluices, toms, and sluice-boxes, and 22 pumps; and a decrease of 10 steam-engines and 184 horse-power, 2 buddles, 23 horse puddling machines, 26 whims, and 24 stamp-heads (crushing cement). In quartz mining there is an increase of 10 steam-engines of 164 horse-power, 79 stamp-heads, 30 whims, 32 whips or pulleys; and a decrease of 2 buddles, and 3 winding, washing, pumping, or other machines moved by water-power. The value of all mining plant in the district has increased £13,398.

In the Ararat Mining District the machinery used in alluvial mining shows a decrease of 6 steam-engines and 88 horse-power, 1 steam puddling machine, 1 whim, 4 whips or pulleys, 8 pumps, 52 stamp-heads (crushing cement), 1 boring machine; and an increase of 6 sluices, toms, and sluice-boxes. In quartz mining there is an increase of 2 steam-engines and 132 horse-power, 1 crushing machine driven by other power than steam, 1 buddle, 7 whims, 5 whips or pulleys, 1 boring machine; and a decrease of 6 stamp-heads. The value of all mining plant in the district has decreased £6,478.

In the Gippsland Mining District the machinery used in alluvial mining shows an increase of 2 whims, 960 sluices, toms, and sluice-boxes, 9 pumps, and 43 water-wheels. In quartz mining there is an increase of 9 steam-engines and 153 horse-power, 3 crushing machines driven by other power than steam, 69 stamp-heads, 1 buddle, and 6 whims. The value of all mining plant in the district has increased £16,481.

Comparing the totals of machinery employed on the goldfields in 1870 with the totals for 1869, the machinery used in alluvial mining shows an increase of 265 horse-power, 10 steam puddling machines, 378 sluices, toms, and sluice-boxes, 62 water-wheels, and 1 quicksilver and compound cradle; and a decrease of 5 steam-engines, 10 buddles, 166 horse puddling machines, 34 whims, 24 whips or pulleys, 2 hydraulic hoses, 173 pumps, and 44 stamp-heads (crushing cement). In quartz mining machinery there is a general increase of 34 steam-engines and 776 horse-power, 4 crushing machines driven by other power than steam, 170 stamp-heads, 9 buddles, 93 whims, 58 whips or pulleys, 4 boring machines; and a decrease of 4 winding, washing, pumping, or other machines, moved by water-power. There is an increase in the total value of the mining plant on the goldfields, as compared with 1869, of £20,227.

No. 11.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of BALLARAT during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.								
	Steam-engines employed in Winding, Pumping, &c.				Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluice-boxes, and Sluices, Toms, and Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.			Crushing Machines driven by other power than Steam.		Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.			
	Total Number.	Aggregate Horse-power.	Number.	Aggregate Horse-power.																						
Central Division	24	40	36	2	...	...	...	...	2	26	599	...	371	...	15	...	...	...	...	...	258,550	
Southern Division	62	4	11	2	10	1	2	8	2	10	145	...	60	...	6	7	...	...	...	27,550	
Buninyong Division	7	17	11	2	...	17	...	...	...	14	280	...	102	3	...	...	...	...	...	...	46,000	
Smythesdale Division	6	15	14	...	42	31	...	5	10	1	5	102	...	43	...	...	...	...	...	...	30,000	
Creswick Division	1	110	13	2	1,000	...	...	1	...	1	32	1,136	1	252	16	4	1	2	...	...	119,000	
Gordon Subdivision	6	3	...	...	...	...	...	...	...	13	321	...	73	...	7	...	...	...	...	13,763	
Steiglitz Subdivision	7	...	...	100	...	...	...	...	...	14	299	...	70	...	3	4	1	...	...	21,535	
Blackwood Division and Blue Mountain South Sub-division	500	16	1	...	...	...	22	432	10	270	...	13	...	...	...	...	49,000	
Totals	38	257	81	17	1,644	74	2	8	18	6	136	3,314	11	1,241	19	48	12	3	565,398

No. 12.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF BEECHWORTH DURING THE QUARTER ENDING 31ST DECEMBER 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.	
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluice-boxes, and Stices, Toms, and	Hydraulic Hooses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.		Boring Machines used in Blasting.
	Total Number	Aggregate Horse-power.											Total Number.	Aggregate Horse-power.								
Beechworth Division	25	270	...	10	15	5	5,000	3	59	28	...	2	7	99	...	64	3	...	5	...	...	£ 53,980
Yackandandah Division	1	4	...	...	1	...	3,100	...	28	28	...	...	5	80	1	75	1	...	2	...	...	14,790
Indigo Division	16	406	15	39	10	38	250	...	15	...	...	3	6	64	...	58	...	...	1	6	...	39,758
Buckland Division	2	22	...	...	...	...	2,000	6	42	44	...	...	18	259	14	276	...	...	...	...	40,740	
Alexandra Subdivision	6	104	8	18	10	6	48	...	4	2	...	2	8	110	...	58	...	...	4	3	...	26,810
Maindample Subdivision	...	...	...	1	...	...	136	...	30	...	...	...	3	24	...	28	...	...	...	...	...	9,500
Benalla Subdivision	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gaffney's Creek Subdivision	...	...	...	...	...	...	500	...	40	40	...	...	8	88	10	166	...	1	...	...	...	28,717
Wood's Point Subdivision	...	...	...	...	...	1	320	...	24	24	1	...	8	115	10	255	...	...	4	1	1	62,333
Big River Subdivision	...	...	...	...	...	...	420	...	8	8	...	...	4	46	2	43	...	...	...	...	...	9,871
Mitta-mitta Division	...	...	...	...	...	...	2,000	3	18	18	...	...	...	...	...	...	...	...	...	...	...	2,603
Jameson Subdivision	...	...	...	...	...	...	400	...	...	...	...	...	4	68	1	61	...	...	...	...	...	14,050
Totals	50	806	23	68	36	50	14,174	12	268	192	1	7	71	953	38	1,084	4	1	16	10	1	303,152

No. 13.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of SANDHURST during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Division or Subdivision.
	Steam-engines employed in Winding, Pumping, &c.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluice-boxes, and Stices, Toms, and Whims.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.	
										Total Number.	Aggregate Horse-power.							
Sandhurst Division	37	542	200	12	67	28	12	342	1	126	2,240	...	1,144	3	206	229	1	391,000
Kilmore Division	...	...	...	...	...	...	...	...	...	8	89	2	75	...	...	...	...	5,000
Heathcote Division and Waranga South Subdivision	...	...	65	4	11	74	...	...	...	17	250	...	128	...	12	22	...	21,685
Waranga North Subdivision	...	...	40	...	...	...	...	...	...	10	163	...	97	...	10	16	...	17,960
Totals	37	542	305	16	78	28	12	342	1	161	2,742	2	1,444	3	228	267	1	435,645

No. 14.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of MARYBOROUGH during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.						Approximate Value of all Mining Plant in the Division or Subdivision.		
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluice-boxes, and Stices, Toms, and	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Whims.	Whips or Pulleys.		Boring Machines used in Blasting.	
	Total Number.	Aggregate Horse-power.											Total Number.	Aggregate Horse-power.	Stamp-heads (crush- ing Quartz or other vein-stuff).				
Maryborough Division	31	777	24	148	20	4	...	...	2	35	36	4	22	492	171	21	16	...	99,030
Amherst Division	24	470	31	100	15	12	80	130	1	21	...	...	10	200	48	8	5	...	48,840
Avoca Subdivision	11	278	8	65	6	30	20	8	...	1	20	1	2	44	14	...	...	...	13,910
Dunolly and Tarnagulla Divisions	2	25	...	74	33	8	...	...	...	24	...	...	40	661	253	33	16	...	63,000
Korong Division	1	10	...	...	...	...	...	1	...	...	6	...	22	510	145	34	23	...	30,000
Redbank and St. Arnaud South Subdivisions	...	...	...	10	4	1	3	...	...	...	...	...	4	75	28	3	1	1	8,839
St. Arnaud North Subdivision	...	...	...	13	...	...	8	14	...	3	...	...	16	326	98	15	15	...	30,686
Totals	69	1,560	63	410	78	55	111	153	3	84	62	5	116	2,308	757	114	76	1	294,305

No. 15.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF CASTLEMAINE DURING THE QUARTER ENDING 31st DECEMBER 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.		
	Steam-engines employed in Winding, Pumping, &c.		Steam Pudding Machines.	Horse Pudding Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		(Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.		Boring Machines used in Blasting.	
	Total Number.	Aggregate Horse-power.																					
Castlemaine Division	4	50	4	164	...	6	140	24	...	100	16	...	...	31	505	...	232	...	...	30	41	...	56,620
Fryer's Creek Division	8	121	...	150	6	15	300	75	2	3	58	...	...	15	269	...	108	2	...	6	11	...	58,108
Hepburn Division	5	100	2	51	11	44	200	41	3	...	38	1	...	30	474	2	206	1	2	37	75	...	33,184
Taradale and Kyneton Subdivision	3	102	...	31	6	...	45	5	...	...	...	...	...	14	275	...	...	...	...	28	...	...	27,010
Tarrangower Division	2	20	...	50	...	5	17	64	2	35	16	...	...	42	880	...	328	...	...	68	79	1	92,316
St. Andrew's Division	...	...	...	3	6	...	40	4	4	...	...	...	...	11	82	1	74	...	...	...	...	...	8,200
Blue Mountain North Subdivision	...	...	...	...	1	...	...	...	...	...	...	...	...	3	30	...	8	...	...	...	...	...	820
Totals	22	393	6	449	30	70	742	213	11	138	128	1	146	2,515	3	1,098	3	2	2	169	206	1	276,258

No. 16.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF ARARAT DURING THE QUARTER ENDING 31st DECEMBER 1870.

Mining Surveyors and Registrars' Divisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Division.
	Steam-engines employed in Winding, Pumping, &c.		Steam Pudding Machines.	Horse Pudding Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other value-stuff).	Buddles.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.			
	Total Number.	Aggregate Horse-power.									Total Number.	Aggregate Horse-power.									
Ararat Division	...	26	2	15	4	4	12	25	6	...	10	173	1	77	1	2	1	...	...
Pleasant Creek Division	...	56	...	2	...	...	40	...	20	36	23	727	...	264	1	43	8	2	...
Barkly Division	...	24	...	28	1	...	90	...	...	22	1	30	...	12	...	...	...	...	...
Raglan Division	...	24	2	30	10	2	...	...	...	...	1	14	...	8	...	...	...	...	...
Totals	...	130	4	75	15	6	142	25	26	58	35	944	1	361	2	45	9	2	108,818		

No. 17.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of GIPPSLAND during the Quarter ending 31st December 1870.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.					QUARTZ MINING.								Approximate Value of all Mining Plant in the Division or Subdivision.
	Horse Pudding Machines.	Whims.	Sluices, Toms, and Sluice-boxes.	Pumps.	Water-wheels.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein stuff).	Buddles.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.	
						Number.	Aggregate Horse-power.							
Omeo Subdivision	1,000	25	25	1	17	...	15	...	...	...	...	£ 4,500
Mitchell River and Boggy Creek Subdivisions	60	...	...	2	20	...	20	...	1	...	...	1,850
Crooked River Division	700	51	56	11	149	7	132	...	...	...	1	33,900
Jericho Division	230	18	18	5	65	3	80	...	...	...	...	18,780
Donnelly's Creek Division	34	...	...	4	58	...	51	...	...	...	...	9,775
Stringer's Creek Division	10	...	...	15	374	1	142	1	1	...	...	62,590
Russell's Creek Subdivision	2	2	195	12	9	6	85	2	65	...	2	...	7,750
Bendoc Subdivision	45	...	7	2	28	2	32	...	3	1	...	6,125
Tarwin Subdivision	1	...	...	...	...	...	...	...	...	...	...	...	50
Totals	3	2	2,274	106	115	46	796	15	537	1	7	1	1	145,320

No. 18.

SUMMARY.

NUMBER of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon in the several Mining Districts.

Mining Districts.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District	183	99½
Beechworth District	738	241
Sandhurst District	696	139½
Maryborough District	501	77
Castlemaine District	394	170½
Ararat District	71	79½
Gippsland District	454	131½
Totals	3,037	938½

NOTE.—The number of "distinct" quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored, it is found, too, that what were supposed to be separate reefs are not really distinct. The extent of auriferous ground is here put down from estimates made by the Mining Surveyors and Registrars, not from actual surveys; and in a few instances the estimates of the present Surveyors and Registrars differ from those made by their predecessors. The figures vary from year to year; as the shallow alluviums of the older goldfields are abandoned by the miners, they are taken up and occupied, under the provisions of the Amending Land Act, by agriculturists and gardeners, and ground which one year was included in the estimated area of gold-workings is excluded in another.

No. 19.

TABLE showing the Number of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon, in the several DIVISIONS and SUBDIVISIONS of each Mining District.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT ...	Central Division	24	7	
	Southern Division	14	6	
	Buninyong Division	13	14	
	Smythesdale Division	11	13	
	Creswick Division	15	12	
	Gordon Subdivision	19	3½	
	Steiglitz Subdivision	64	40	
	Blackwood Division and Blue Mountain South Subdivision	23	4	
	Totals	183	99½	
BEECHWORTH	Beechworth Division	90	47	
	Yaekandandah Division	64	11½	
	Indigo Division	25	2½	
	Buckland Division	358	60	
	Alexandra Subdivision	32	17	
	Maindample Subdivision	20	11	
	Benalla Subdivision	3	10	
	Gaffney's Creek Subdivision	18	24	
	Wood's Point Subdivision	93	18	
	Big River Subdivision	12	30	
	Mitta-mitta Division	5	3	
	Jamieson Subdivision	18	7	
	Totals	738	241	
SANDHURST	Sandhurst Division	312	21	
	Kilmore Division	120	27	
	Heathcote Division and Waranga South Subdivision	164	81	
	Waranga North Subdivision	100	10½	
	Totals	696	139½	
MARYBOROUGH	Maryborough Division	135	5	
	Anherst Division	45	6	
	Avoca Subdivision	12	16	
	Dunolly and Tarnagulla Divisions	177	16	
	Korong Division	42	16	
	Redbank and St. Arnaud South Subdivisions	26	11	
	St. Arnaud North Subdivision	64	7	
	Totals	501	77	
CASTLEMAINE	Castlemaine Division	101	9½	
	Fryer's Creek Division	30	28½	
	Hepburn Division	87	82	
	Taradale and Kyneton Subdivision	31	22	
	Tarrangower Division	74	9½	
	St. Andrew's Division	67	14½	
	Blue Mountain North Subdivision	4	4½	
	Totals	394	170½	
ARARAT ...	Ararat Division	23	34	
	Pleasant Creek Division	34	24	
	Barkly Division	9	16	
	Raglan Division	5	5¾	
	Totals	71	79¾	
GIPPSLAND	Omeo Subdivision	19	8	
	Mitchell River and Boggy Creek Subdivisions	16	7	
	Crooked River Division	341	49½	
	Jericho Division	30	25	
	Donnelly's Creek Division	13	6	
	Stringer's Creek Division	10	7	
	Russell's Creek Subdivision	13	3	
	Bendoc Subdivision	11	23	
	Tarwin Subdivision	1	3	
	Totals	454	131½	

No. 20.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1870 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.				Tons Crushed.	Total Produce.				Average Yield per Ton.			
				tons.	ozs.	dwt.	grs.		oz.	dwt.	grs.	
Ballarat District	...	...	...	286,243 $\frac{1}{4}$	88,656	8	7		0	6	4'66	
Beechworth District	...	...	...	111,104 $\frac{1}{4}$	55,952	8	5		0	10	1'72	
Sandhurst District	...	...	...	211,542	122,443	16	3		0	11	13'83	
Maryborough District	...	...	...	72,422 $\frac{1}{2}$	30,405	18	6		0	8	9'52	
Castlemaine District	...	...	...	118,682 $\frac{1}{2}$	62,368	12	12		0	10	12'24	
Ararat District	...	...	...	75,374 $\frac{1}{10}$	47,051	11	3		0	12	11'63	
Gippsland District	...	...	...	33,158 $\frac{1}{4}$	41,805	1	22		1	5	5'17	
Totals	...	...	...	908,526 $\frac{1}{10}$	448,683	16	10		0	9	21'05	

NOTE.—The above table does not show the total quantity of quartz crushed in the several localities, but only the yield of certain "crushings" respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the Statistics, information has been obtained concerning 7,603,619 $\frac{1}{10}$ tons which have been crushed, which yielded an average of 11 dwts. 4'57 grs. per ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1870 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.			Tons Crushed.	Total Produce.			Average Yield per Ton.			Remarks.
				tons.	ozs.	dwt.	grs.	oz.	dwt.	grs.	
BALLARAT ...	{	Central Division	...	77,774	14,002	6	4	0	3	14'41	
		Southern Division	...	8,987	1,625	17	12	0	3	14'83	
		Buninyong Division	...	22,170	3,766	15	5	0	3	9'55	
		Smythesdale Division	...	2,589 $\frac{3}{4}$	689	16	0	0	5	7'85	
		Creswick Division	...	117,834	44,586	6	10	0	7	13'62	
		Gordon Subdivision	...	20,403	9,382	11	17	0	9	4'73	
		Steiglitz Subdivision	...	8,893	6,237	17	12	0	14	0'69	
		Blackwood Division and Blue Mountain South Subdivision	...	27,592 $\frac{1}{2}$	8,364	17	19	0	6	1'51	
		Totals	...	286,243 $\frac{1}{4}$	88,656	8	7	0	6	4'66	
BEECHWORTH	{	Beechworth Division	...	2,449 $\frac{1}{2}$	2,156	17	16	0	17	14'65	
		Yackandandah Division	...	9,307	4,021	17	0	0	8	15'42	
		Indigo Division	...	5,303 $\frac{1}{2}$	3,200	13	12	0	12	1'68	
		Buckland Division	...	35,198 $\frac{1}{2}$	20,872	3	17	0	11	20'63	
		Alexandra Subdivision	...	4,345 $\frac{3}{4}$	4,176	19	11	0	19	5'35	
		Maindample Subdivision	...	...	...	...	...	...	...	...	None reported.
		Benalla Subdivision	...	...	...	...	...	...	...	...	None reported.
		Gaffney's Creek Subdivision	...	23,721	5,175	9	19	0	4	8'72	
		Wood's Point Subdivision	...	22,612	13,154	19	0	0	11	15'24	
		Big River Subdivision	...	3,817	1,541	3	0	0	8	1'80	
		Mitta-mitta Division	...	...	...	...	...	...	...	...	None reported.
		Jamieson Subdivision	...	4,350	1,652	5	2	0	7	14'31	
		Totals	...	111,104 $\frac{1}{4}$	55,952	8	5	0	10	1'72	
SANDHURST	{	Sandhurst Division	...	187,056	109,396	11	17	0	11	16'72	
		Kilmore Division	...	1,455	1,100	14	21	0	15	3'13	
		Heathcote Division and Waranga South Subdivision	...	7,920	5,121	16	7	0	12	22'41	
		Waranga North Subdivision	...	15,111	6,824	13	6	0	9	0'78	
		Totals	...	211,542	122,443	16	3	0	11	13'83	

No. 21.—TABLE showing the Average Yield of Gold from Quartz in the several Divisions, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
MARYBOROUGH ...	Maryborough Division ...	24,713	10,772 7 1	0 8 17'23	
	Amherst Division ...	3,118 ¹ / ₂	1,333 15 5	0 8 13'29	
	Avoca Subdivision ...	1,358	620 10 2	0 9 3'32	
	Dunolly and Tarnagulla Divisions	31,004	11,416 11 3	0 7 8'74	
	Korong Division ...	2,400	1,039 10 11	0 8 15'90	
	Redbank and St. Arnaud South Subdivisions ...	3,565 ³ / ₁₀	1,218 18 0	0 6 20'10	
	St. Arnaud North Subdivision ...	6,264	4,004 6 8	0 12 18'84	
	Totals ...	72,422 ⁴ / ₅	30,405 18 6	0 8 9'52	
CASTLEMAINE ...	Castlemaine Division ...	27,493	7,751 12 1	0 5 15'33	
	Fryer's Creek Division ...	9,189	4,849 6 22	0 10 13'31	
	Hepburn Division ...	38,472	17,044 19 13	0 8 20'66	
	Taradale and Kyneton Subdivision	13,757	15,537 7 18	1 2 14'12	
	Tarrangower Division ...	26,036	11,389 16 22	0 8 17'98	
	St. Andrew's Division ...	3,075 ¹ / ₂	5,488 8 22	1 15 16'66	
	Blue Mountain North Subdivision	660	307 0 0	0 9 7'27	
	Totals ...	118,682 ¹ / ₅	62,368 12 2	0 10 12'24	
ARARAT ...	Ararat Division ...	7,355	2,396 8 21	0 6 12'39	
	Pleasant Creek Division ...	67,761 ³ / ₅	44,601 15 6	0 13 3'94	
	Barkly Division ...	257 ¹ / ₂	53 7 0	0 4 3'44	
	Raglan Division ...	...	...	...	None reported.
	Totals ...	75,374 ¹ / ₁₀	47,051 11 3	0 12 11'63	
GIPPSLAND ...	Omeo Subdivision ...	...	...	...	None reported.
	Mitchell River and Boggy Creek Subdivisions ...	964	688 6 8	0 14 6'73	
	Crooked River Division ...	2,910	3,039 6 14	1 0 21'33	
	Jericho Division ...	1,642	837 13 5	0 10 4'87	
	Donnelly's Creek Division ...	166 ¹ / ₄	25 14 15	0 3 2'29	
	Stringer's Creek Division ...	25,915	35,965 14 12	1 7 18'16	
	Russell's Creek Subdivision ...	772	583 11 12	0 15 2'84	
	Bendoe Subdivision ...	789	664 15 4	0 16 20'41	
	Tarwin Subdivision ...	...	...	...	None reported
	Totals ...	33,158 ¹ / ₄	41,805 1 22	1 5 5'17	

No. 22.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1870 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District...	626	334 6 15	0 10 16'35	
Beechworth District	1,804	265 10 3	0 2 22'64	
Sandhurst District	101,363	14,730 18 0	0 2 21'75	
Maryborough District	14,053	1,979 17 21	0 2 19'62	
Castlemaine District	34,415	3,597 14 20	0 2 2'17	
Ararat District ...	10,666 ² / ₁₀	1,041 7 18	0 1 22'86	
Gippsland District	1,045 ² / ₅	184 2 14	0 3 12'54	
Totals ...	163,972 ³ / ₄	22,133 17 19	0 2 16'79	

NOTE.—From 1864 to 1870 inclusive, 1,333,827 tons and 7 cwt. of quartz tailings, &c., were crushed and yielded 258,483 ozs. 7 dwts. 12 grs. of gold, being an average of 3 dwts. 21 of grs. per ton.

No. 23.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1870 in the several DIVISIONS and SUBDIVISIONS of each Mining District from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
			ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT ...	Central Division ...	...	...	...	None reported.
	Southern Division ...	230	27 0 0	0 2 8'34	None reported.
	Buninyong Division ...	...	...	...
	Smythesdale Division ...	196	238 12 9	1 4 8'37	None reported.
	Creswick Division ...	200	68 14 6	0 6 20'91	
	Gordon Subdivision ...	...	...	...	None reported.
	Steiglitz Subdivision ...	...	...	...	None reported.
	Blackwood Division and Blue Mountain South Subdivision ...	...	...	...	None reported.
	Totals ...	626	334 6 15	0 10 16'35	
BEECHWORTH	Beechworth Division ...	200	60 0 0	0 6 0	None reported.
	Yackandandah Division ...	...	...	...
	Indigo Division ...	100	12 0 0	0 2 9'60	
	Buckland Division ...	1,090	110 5 0	0 2 0'55	
	Alexandra Subdivision ...	413	82 13 3	0 4 0'06	None reported.
	Maindample Subdivision ...	...	...	...
	Benalla Subdivision ...	...	...	...
	Gaffney's Creek Subdivision ...	...	...	...	None reported.
	Wood's Point Subdivision ...	1	0 12 0	0 12 0	None reported.
	Big River Subdivision ...	...	...	...	None reported.
	Mitta-mitta Division ...	...	...	...	None reported.
	Jamieson Subdivision ...	...	...	...	None reported.
	Totals ...	1,804	265 10 3	0 2 22'64	
SANDHURST	Sandhurst Division ...	92,193	13,443 18 20	0 2 21'99	None reported.
	Kilmore Division ...	...	...	...
	Heathcote Division and Waranga South Subdivision ...	6,673	1,107 7 4	0 3 7'65	
	Waranga North Subdivision ...	2,497	179 12 0	0 1 10'52	
	Totals ...	101,363	14,730 18 0	0 2 21'75	
MARYBOROUGH	Maryborough Division ...	2,617	362 13 9	0 2 18'51	
	Amherst Division ...	2,091	283 4 0	0 2 17'01	
	Avoca Subdivision ...	4,252	666 15 0	0 3 3'26	
	Dunolly and Tarnagulla Divisions ...	838	189 17 0	0 4 12'74	
	Korong Division ...	1,630	144 18 12	0 1 18'67	
	Redbank and St. Arnaud South Subdivisions ...	1,725	213 5 0	0 2 11'33	
	St. Arnaud North Subdivision ...	900	119 5 0	0 2 15'60	
	Totals ...	14,053	1,979 17 21	0 2 19'62	
CASTLEMAINE	Castlemaine Division ...	10,838	575 12 23	0 1 1'49	None reported.
	Fryer's Creek Division ...	12,094	2,170 6 0	0 3 14'13	
	Hepburn Division ...	3,709	368 9 7	0 1 23'68	
	Taradale and Kyneton Subdivision ...	...	...	...
	Tarrangower Division ...	7,761	482 4 16	0 1 5'82	
	St. Andrew's Division ...	13	1 1 22	0 1 16'46	None reported.
	Blue Mountain North Subdivision ...	...	...	...
	Totals ...	34,415	3,597 14 20	0 2 2'17	
ARARAT ...	Ararat Division ...	288	100 16 0	0 7 0	None reported.
	Pleasant Creek Division ...	9,373 $\frac{1}{2}$	725 16 18	0 1 13'16	
	Barkly Division ...	1,004 $\frac{17}{20}$	214 15 0	0 4 6'58	
	Raglan Division ...	...	...	...
	Totals ...	10,666 $\frac{7}{20}$	1,041 7 18	0 1 22'86	
GIPPSLAND	Omeo Subdivision ...	...	...	...	None reported.
	Mitchell River and Boggy Creek Subdivisions ...	...	...	...	None reported.
	Crooked River Division ...	...	...	...	None reported.
	Jericho Division ...	...	...	...	None reported.
	Donnelly's Creek Division ...	...	...	...	None reported.
	Stringer's Creek Division ...	290	23 15 0	0 1 15'31	None reported.
	Russell's Creek Subdivision ...	708 $\frac{3}{4}$	156 8 6	0 4 9'98	
	Bendoe Subdivision ...	47	3 19 8	0 1 16'51	
	Tarwin Subdivision ...	...	...	...	None reported.
	Totals ...	1,045 $\frac{3}{4}$	184 2 14	0 3 12'54	

No. 24.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1870 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District	1,508 ¹³ ₂₀	4,592 8 9	3 0 21'14	None reported.
Beechworth District	62	563 10 0	9 1 18'58	
Sandhurst District	1,030	1,930 4 0	1 17 11'51	
Maryborough District	408	833 4 18	2 0 20'27	
Castlemaine District	56	96 16 0	1 14 13'71	
Ararat District ... ..	...	...	...
Gippsland District	115 ³ ₄	487 4 10	4 4 7'06	
Totals	3,180 ¹ ₄	8,503 7 13	2 13 11'42	

No. 25.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1870 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	408 ³ ₂₀	756 1 9	1 17 1'16	None reported.
	Southern Division ... ..	...	...	...
	Buninyong Division ... ..	...	...	...
	Smythesdale Division	7 ¹ ₂	15 0 0	2 0 0	None reported.
	Creswick Division	1,048	3,761 15 0	3 11 18'93	
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision	8	18 0 0	2 5 0	
	Blackwood Division and Blue Mountain South Subdivision	37	41 12 0	1 2 11'67	
	Totals	1,508 ¹³ ₂₀	4,592 8 9	3 0 21'14	
BEECHWORTH	Beechworth Division	12	60 0 0	5 0 0	None reported.
	Yackandandah Division ... ..	...	...	...	None reported.
	Indigo Division ... ..	...	...	...
	Buckland Division	49	494 10 0	10 1 20'08	None reported.
	Alexandra Subdivision ... ..	...	...	...	None reported.
	Maindample Subdivision ... ..	...	...	...	None reported.
	Benalla Subdivision ... ..	...	...	...	None reported.
	Gaffney's Creek Subdivision ... ..	...	...	...	None reported.
	Wood's Point Subdivision	1	9 0 0	9 0 0	None reported.
	Big River Subdivision ... ..	...	...	...	None reported.
	Mitta-mitta Division ... ..	...	...	...	None reported.
	Jamieson Subdivision ... ..	...	...	...	None reported.
	Totals	62	563 10 0	9 1 18'58	
SANDHURST	Sandhurst Division	1,030	1,930 4 0	1 17 11'51	None reported.
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision ... ..	...	...	...	None reported.
	Waranga North Subdivision ... ..	...	...	...	None reported.
	Totals	1,030	1,930 4 0	1 17 11'51	
MARYBOROUGH	Maryborough Division	24	35 17 6	1 9 21'25	None reported.
	Amherst Division ... ..	...	...	...	None reported.
	Avoca Subdivision ... ..	...	...	...	None reported.
	Dunolly and Tarnagulla Divisions ... ..	...	...	...	None reported.
	Korong Division ... ..	...	...	...	None reported.
	Redbank and St. Arnaud South Subdivisions	377	790 7 12	2 1 22'28	
	St. Arnaud North Subdivision	7	7 0 0	1 0 0	
	Totals	408	833 4 18	2 0 20'27	

No. 25.—TABLE showing the Average Yield of Gold from Pyrites and Blanketings, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
CASTLEMAINE ...	Castlemaine Division ...	...	...	...	None reported.
	Fryer's Creek Division ...	...	...	...	None reported.
	Hepburn Division ...	54	92 8 0	1 14 5'33	
	Taradale and Kyneton Subdivision ...	...	...	...	None reported.
	Tarrangower Division ...	2	4 8 0	2 4 0	
	St. Andrew's Division ...	...	...	...	None reported.
	Blue Mountain North Subdivision ...	...	...	...	None reported.
	Totals ...	56	96 16 0	1 14 13'71	
ARARAT ...	Ararat Division ...	...	...	...	None reported.
	Pleasant Creek Division ...	...	...	...	None reported.
	Barkly Division ...	...	...	...	None reported.
	Raglan Division ...	...	...	...	None reported.
	Totals ...	...	...	...
GIPPSLAND ...	Omeo Subdivision ...	...	...	...	None reported.
	Mitchell River and Boggy Creek Subdivisions ...	...	...	...	None reported.
	Crooked River Division ...	7½	194 4 10	25 17 22'13	
	Jericho Division ...	...	...	...	None reported.
	Donnelly's Creek Division ...	...	...	...	None reported.
	Stringer's Creek Division ...	108½	293 0 0	2 14 5'01	
	Russell's Creek Subdivision ...	...	...	...	None reported.
	Bendoc Subdivision ...	...	...	...	None reported.
	Tarwin Subdivision ...	...	...	...	None reported.
	Totals ...	115½	487 4 10	4 4 7'06	

No. 26.

SUMMARY.

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ending 31st December 1870.

Mining Districts.	From	To
	£ s. d.	£ s. d.
Ballarat District ...	0 5 0	0 10 0
Beechworth District ...	0 4 6	1 5 0
Sandhurst District ...	0 3 6	1 0 0
Maryborough District ...	0 5 0	0 10 0
Castlemaine District ...	0 2 6	0 17 0
Ararat District ...	0 8 0	0 10 0
Gippsland District ...	0 10 0	1 10 0
Lowest and Highest Prices ...	0 2 6	1 10 0

No. 27.

SUMMARY.

PRICE of GOLD per Ounce in the several MINING DISTRICTS during the Quarter ending 31st December 1870.

Mining Districts.	From	To
	£ s. d.	£ s. d.
Ballarat District ...	3 16 0	4 2 10
Beechworth District ...	2 9 0	4 1 3
Sandhurst District ...	3 15 0	4 0 9
Maryborough District ...	3 10 0	4 2 0
Castlemaine District ...	3 17 3	4 0 6
Ararat District ...	3 16 6	3 19 6
Gippsland District ...	3 0 0	3 18 0
Lowest and Highest Prices ...	2 9 0	4 2 10

No. 28.

QUANTITY of GOLD EXPORTED during the Year 1870, as returned by the Customs Department.

1,222,798 ozs. 3 dwts.

NOTE.—In addition to the above, 303,069 ozs. 15 dwts. New Zealand gold, 855 ozs. 16 dwts. Tasmanian gold, and 3,097 ozs. 13 dwts. South Australian gold, have been shipped from this colony during the year.

No. 29.

RETURN showing approximately the GOLD obtained from QUARTZ VEINS and ALLUVIAL WORKINGS during the Year 1870.

	...	...	...	...	...	...	ozs.	dwts.
From Quartz Veins	...	...	...	...	...	...	548,982	15
From Alluvial Workings	...	...	...	...	...	...	673,815	8
Total Gold Exported							1,222,798	3

NOTE.—The above results are but rough approximations. The Mining Surveyors and Registrars can furnish only estimates based on information afforded by the banks and gold-buyers, and on their own knowledge of the character of the workings in their districts. The check on the returns—and not a sufficient one—is that afforded by the returns of quartz and quartz tailings crushed, which, however, cannot and do not comprise information respecting all the vein-stuff put through the mills.

No. 30.

RETURN of the Number of GOLD-MINING LEASES in force on the 31st December 1870, and the Extent of GROUND LEASED.

Mining Districts.					Number of Leases.	Extent.		
						A.	R.	P.
Ballarat District	...	...	...	...	106	5,574	2	38
Beechworth District	...	...	...	...	188	3,599	3	3
Sandhurst District	...	...	...	...	601	4,668	3	22½
Maryborough District	...	...	...	...	341	7,452	0	33
Castlemaine District	...	...	...	...	191	2,602	2	4
Ararat District	...	...	...	...	94	1,285	1	35
Gippsland District	...	...	...	...	94	1,467	3	30
Totals	...	...	...	...	1,615	26,651	2	5½

NOTE.—The total number of Gold-Mining Leases granted since the commencement is 5,335, containing 117,981 a. 3 r. 2½ p. The above table shows those only which were actually in force on the 31st December 1870.

No. 31.

RETURN of the Number of GOLD-MINING LEASES issued in the Year 1870, and the Extent of GROUND LEASED.

Mining Districts.					Number of Leases.	Extent.		
						A.	R.	P.
Ballarat District	...	...	...	...	55	2,073	0	20
Beechworth District	...	...	...	...	58	1,575	3	29
Sandhurst District	...	...	...	...	234	2,152	1	32½
Maryborough District	...	...	...	...	182	5,216	2	16
Castlemaine District	...	...	...	...	107	2,175	0	35
Ararat District	...	...	...	...	23	497	2	39
Gippsland District	...	...	...	...	78	1,672	0	2
Totals	...	...	...	...	737	15,363	0	13½

No. 32.**SUMMARY.**

AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same protected by Registration or by Exemption Certificates, in the several MINING DISTRICTS, on the 31st December 1870.

Mining Districts.					Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked being protected by Certificates.		
					A.	R.	P.	A.	R.	P.
Ballarat District	...	...	...	...	28,932	1	30	5,225	3	33
Beechworth District	...	...	...	...	19,486	0	0	3,081	2	0
Sandhurst District	...	...	...	...	4,316	1	34	373	3	17
Maryborough District	...	...	...	...	4,229	0	5	292	0	29
Castlemaine District	...	...	...	...	5,850	0	5	882	0	37
Ararat District	...	...	...	...	1,426	0	0	600	2	0
Gippsland District	...	...	...	...	3,101	2	6	493	2	8
Totals	...	...	...	...	67,341	2	0	10,949	3	4

NOTE.—The areas given in the second column are included in the first.

No. 33.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same not being worked being protected by Registration or by Exemption Certificates, in the several DIVISIONS and SUBDIVISIONS, on the 31st December 1870.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked being protected by Certificates.		
		A.	R.	P.	A.	R.	P.
BALLARAT ...	Central Division ...	12,300	0	0	3,328	0	21
	Southern Division ...	2,050	0	0	170	0	0
	Buninyong Division ...	2,954	1	10	245	0	2
	Smythesdale Division ...	5,455	1	35	601	3	16
	Creswick Division ...	4,117	0	0	675	2	0
	Gordon Subdivision ...	1,152	3	0	180	2	0
	Steiglitz Subdivision ...	264	3	1	...		
	Blackwood Division and Blue Mountain South Sub-division ...	638	0	24	24	3	34
	Totals ...	28,932	1	30	5,225	3	33
BEECHWORTH ...	Beechworth Division ...	7,400	0	0	125	0	0
	Yackandandah Division ...	1,750	0	0	45	0	0
	Indigo Division ...	5,280	0	0	2,200	0	0
	Buckland Division ...	736	0	0	202	0	0
	Alexandra Subdivision ...	3,040	0	0	450	0	0
	Maindample Subdivision ...	155	0	0	2	0	0
	Benalla Subdivision ...	...			...
	Gaffney's Creek Subdivision ...	90	0	0	2	0	0
	Wood's Point Subdivision ...	145	0	0	4	2	0
	Big River Subdivision ...	120	0	0	2	0	0
	Mitta-mitta Division ...	400	0	0	40	0	0
	Jamieson Subdivision ...	370	0	0	9	0	0
	Totals ...	19,486	0	0	3,081	2	0
SANDHURST ...	Sandhurst Division ...	3,250	0	0	216	0	0
	Kilmore Division ...	200	0	0	...		
	Heathcote Division and Waranga South Subdivision ...	386	1	34	60	3	17
	Waranga North Subdivision ...	480	0	0	97	0	0
	Totals ...	4,316	1	34	373	3	17
MARYBOROUGH ...	Maryborough Division ...	2,297	0	5	119	2	15
	Amherst Division ...	788	0	0	57	0	0
	Avoca Subdivision ...	550	0	0	29	1	9
	Dunolly and Tarnagulla Divisions ...	256	0	0	10	3	4
	Korong Division ...	150	0	0	40	0	0
	Redbank and St. Arnaud South Subdivisions ...	108	0	0	30	0	0
	St. Arnaud North Subdivision ...	80	0	0	5	2	1
	Totals ...	4,229	0	5	292	0	29
CASTLEMAINE...	Castlemaine Division ...	857	2	0	26	1	0
	Fryer's Creek Division ...	2,400	0	0	120	0	0
	Hepburn Division ...	1,522	0	0	212	0	0
	Taraale and Kyneton Subdivision ...	675	0	31	419	1	36
	Tarrangower Division ...	171	3	17	19	2	32
	St Andrew's Division ...	43	1	27	9	1	0
	Blue Mountain North Subdivision ...	180	0	10	75	2	9
	Totals ...	5,850	0	5	882	0	37
ARARAT ...	Ararat Division ...	404	0	0	...		
	Pleasant Creek Division ...	900	0	0	600	0	0
	Barkly Division ...	15	0	0	...		
	Raglan Division ...	107	0	0	0	2	0
	Totals ...	1,426	0	0	600	2	0
GIPPSLAND ...	Omco Subdivision ...	778	1	0	2	3	2
	Mitchell River and Boggy Creek Subdivisions ...	430	0	0	85	0	0
	Crooked River Division ...	800	0	0	250	0	0
	Jericho Division ...	250	0	0	21	2	0
	Donnelly's Creek Division ...	330	2	0	...		
	Stringer's Creek Division ...	28	0	0	...		
	Russell's Creek Subdivision ...	165	2	0	25	0	0
	Bendoc Subdivision ...	159	1	6	109	1	6
	Tarwin Subdivision ...	160	0	0	...		
	Totals ...	3,101	2	6	493	2	8

No. 34.

SUMMARY.

ESTIMATED VALUE of the CLAIMS in the several MINING DISTRICTS on the 31st December 1870.

Mining Districts.						Estimated Value of Claims.		
						£	s.	d.
Ballarat District	...	...	...	...	...	1,021,686	0	0
Beechworth District	...	...	...	...	...	816,900	0	0
Sandhurst District	...	...	...	...	...	2,567,840	0	0
Maryborough District	...	...	...	...	...	790,870	0	0
Castlemaine District	...	...	...	...	...	1,085,826	0	0
Ararat District	...	...	...	...	...	1,022,850	0	0
Gippsland District	...	...	...	...	...	378,206	0	0
Totals	...	...	...	...	...	7,684,178	0	0

No. 35.

TABLE showing the ESTIMATED VALUE of the MINING CLAIMS in the several DIVISIONS and SUBDIVISIONS of each Mining District on the 31st December 1870.

Mining Districts.		Mining Surveyors and Registrars' Divisions and Subdivisions.						Value of Claims.		
								£	s.	d.
BALLARAT	Central Division	...	...	...	...	297,721	0	0
			Southern Division	...	...	...	...	70,000	0	0
			Buninyong Division	...	...	...	...	60,000	0	0
			Smythesdale Division	...	...	...	...	108,680	0	0
			Creswick Division	...	...	...	...	350,000	0	0
			Gordon Subdivision	...	...	...	...	93,785	0	0
			Steiglitz Subdivision	...	...	...	...	9,500	0	0
			Blackwood Division and Blue Mountain South Subdivision	...	...	...	...	32,000	0	0
			Totals	...	...	...	...	1,021,686	0	0
BEECHWORTH	Beechworth Division	...	...	...	...	320,000	0	0
			Yackandandah Division	...	...	...	...	115,000	0	0
			Indigo Division	...	...	...	...	40,000	0	0
			Buckland Division	...	...	...	...	105,400	0	0
			Alexandra Subdivision	...	...	...	...	95,500	0	0
			Maindample Subdivision	...	...	...	...	4,000	0	0
			Benalla Subdivision	...	...	...	...	...	...	...
			Gaffney's Creek Subdivision	...	...	...	...	28,000	0	0
			Wood's Point Subdivision	...	...	...	...	60,000	0	0
			Big River Subdivision	...	...	...	...	4,000	0	0
			Mitta-mitta Division	...	...	...	...	10,000	0	0
			Jamieson Subdivision	...	...	...	...	35,000	0	0
			Totals	...	...	...	...	816,900	0	0
SANDHURST	Sandhurst Division	...	...	...	...	2,500,000	0	0
			Kilmore Division	...	...	...	...	5,000	0	0
			Heathcote Division and Waranga South Subdivision	...	...	...	...	37,840	0	0
			Waranga North Subdivision	...	...	...	...	25,000	0	0
			Totals	...	...	...	...	2,567,840	0	0
MARYBOROUGH	Maryborough Division	...	...	...	...	313,780	0	0
			Amherst Division	...	...	...	...	51,790	0	0
			Avoca Subdivision	...	...	...	...	36,000	0	0
			Dunolly and Tarnagulla Divisions	...	...	...	...	297,300	0	0
			Korong Division	...	...	...	...	20,000	0	0
			Redbank and St. Arnaud South Subdivision	...	...	...	...	22,000	0	0
			St. Arnaud North Subdivision	...	...	...	...	50,000	0	0
			Totals	...	...	...	...	790,870	0	0
CASTLEMAINE	Castlemaine Division	...	...	...	...	60,000	0	0
			Fryer's Creek Division	...	...	...	...	210,000	0	0
			Hepburn Division	...	...	...	...	150,000	0	0
			Taradale and Kyneton Subdivision	...	...	...	...	327,570	0	0
			Tarrangower Division	...	...	...	...	232,756	0	0
			St. Andrew's Division	...	...	...	...	81,500	0	0
			Blue Mountain North Subdivision	...	...	...	...	24,000	0	0
			Totals	...	...	...	...	1,085,826	0	0

No. 35.—TABLE showing the Estimated Value of Mining Claims, &c.—*continued*.

Mining Districts.				Mining Surveyors and Registrars' Divisions and Subdivisions.							Value of Claims.		
											£	s.	d.
ARARAT	{	Ararat Division	11,850	0	0
				Pleasant Creek Division	...	...	...	...	...	1,000,000	0	0
				Barkly Division	...	...	...	...	...	6,000	0	0
				Raglan Division	...	...	...	...	...	5,000	0	0
				Totals	...	...	...	...	...	1,022,850	0	0
GIPPSLAND	{	Omco Subdivision	7,270	0	0
				Mitchell River and Boggy Creek Subdivisions	...	...	...	...	...	8,000	0	0
				Crooked River Division	...	...	...	...	...	15,000	0	0
				Jericho Division	...	...	...	...	...	7,000	0	0
				Donnelly's Creek Division	...	...	...	...	...	21,901	0	0
				Stringer's Creek Division	...	...	...	...	...	297,335	0	0
				Russell's Creek Subdivision	...	...	...	...	...	8,500	0	0
				Bendoc Subdivision	...	...	...	...	...	7,200	0	0
				Tarwin Subdivision	...	...	...	...	...	6,000	0	0
				Totals	...	...	...	...	...	378,206	0	0

No. 36.

SUMMARY.

LENGTH of WATER RACES and their APPROXIMATE COST, in the several MINING DISTRICTS,
31st December 1870.

Mining Districts.						Length of Races.		Approximate Cost.		
						miles	chains.	£	s.	d.
Ballarat District	...	...	...	...	...	300	72	23,763	0	0
Beechworth District	...	...	...	...	...	889	55	201,269	0	0
Sandhurst District	...	...	...	...	...	36	10	2,790	0	0
Maryborough District	...	...	...	...	...	203	15	9,652	0	0
Castlemaine District	...	...	...	...	...	274	8	27,935	0	0
Ararat District	...	...	...	...	...	67	20	3,132	0	0
Gippsland District	...	...	...	...	...	167	79	13,055	0	0
Totals						1,939	19	281,596	0	0

No. 37.

TABLE showing the LENGTH of WATER RACES and their APPROXIMATE COST, in the several DIVISIONS
and SUBDIVISIONS of each MINING DISTRICT, 31st December 1870.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.					Length of Races.	Approximate Cost.	Remarks.	
BALLARAT ...	{	Central Division	miles chains. 29 40	£ 708	There are about 30 miles of races in this division, but only 7 miles in use.	
		Southern Division	...	...	...	...	...
		Buninyong Division	...	...	...	7 0	210
		Smythesdale Division	15 63	473	This is exclusive of 79 chains of fluming.	
		Creswick Division	...	...	...	108 49	13,535
		Gordon Subdivision	...	...	...	6 40	167
		Steiglitz Subdivision	...	...	...	66 40	1,990
		Blackwood Division and Blue Mountain South Subdivision	...	...	...	67 0	6,680
		Totals	...	...	...	300 72	23,763
		BEECHWORTH ...	{	Beechworth Division	352 20	128,500	A number of races have been abandoned during the year.
Yackandandah Division	145 0	27,900		
Indigo Division	12 0	800		
Buckland Division	163 60	11,604		
Alexandra Subdivision	2 35	290		
Maindample Subdivision		
Benalla Subdivision		
Gaffney's Creek Subdivision	32 0	6,500		
Wood's Point Subdivision	22 20	6,525		
Big River Subdivision	18 0	4,050		
Mitta-mitta Division	120 0	12,000		
Jameson Subdivision	22 0	3,100		
Totals					889 55	201,269

No. 37.—TABLE showing the Length of Water Races, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Length of Races.		Approximate Cost.	Remarks.
		miles	chains.	£	
SANDHURST	Sandhurst Division	36	10	2,790	
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision ... ..	...	...	...
	Waranga North Subdivision ... ..	...	...	...
	Totals	36	10	2,790	
MARYBOROUGH	Maryborough Division ... ..	...	...	...
	Amherst Division	190	0	9,000	This includes cost of a reservoir.
	Avoca Subdivision	7	60	630	
	Dunolly and Tarnagulla Divisions	5	35	22	
	Korong Division ... ..	...	...	...
	Redbank and St. Arnaud South Subdivisions ... ..	...	...	...
	St. Arnaud North Subdivision ... ..	...	...	...
	Totals	203	15	9,652	
CASTLEMAINE	Castlemaine Division ... ..	...	...	...	In the estimated cost fluming is included.
	Fryer's Creek Division	24	0	5,140	
	Hepburn Division	234	7	22,300	
	Taradale and Kyneton Subdivisions	7	0	255	
	Tarrangower Division	0	60	60	
	St. Andrew's Division	2	21	38	
	Blue Mountain North Subdivision	6	0	142	
	Totals	274	8	27,935	
ARARAT	Ararat Division	3	20	32	
	Pleasant Creek Division	10	0	400	
	Barkly Division ... ..	...	...	...
	Raglan Division	54	0	2,700	
	Totals	67	20	3,132	
GIPPSLAND	Omeo Subdivision	91	8	6,620	
	Mitchell River and Boggy Creek Subdivisions ... ..	...	...	...
	Crooked River Division	38	0	760	
	Jericho Division	16	40	3,700	
	Donnelly's Creek Division	12	31	1,675	
	Stringer's Creek Division ... ..	...	...	...
	Russell's Creek Subdivision	4	0	180	
	Bendoc Subdivision	6	0	120	
	Tarwin Subdivision ... ..	...	...	...
	Totals	167	79	13,055	

No. 38.

RETURN of the NUMBER of WATER-RIGHT LICENSES in force on the 31st December 1870.

Number.	Area of Races.			Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.			Capacity of Reservoirs.	Annual Rent.		
	a.	r.	p.	miles	chains.		gallons.	a.	r.	p.	£	s. d.
181	1,628	2	20½	462	346		212,776,428	368	1	13	650,706,107	1,079 10 0

No. 39.

THE NUMBER of WATER-RIGHT LICENSES for Gold-Mining purposes issued during the Year 1870 is as follows:—

Number.	Area of Races.			Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.			Capacity of Reservoirs.	Annual Rent.		
	a.	r.	p.	miles	chains.		gallons.	a.	r.	p.	£	s. d.
18	205	2	17½	62	52		43,741,963	41	1	8	327,000,000	111 0 0

No. 40.

SUMMARY.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1870 of Sums lodged with the Wardens' Clerks of the several MINING DISTRICTS as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Balances on hand on the 31st December 1869.	Total Deposits received during 1870.	Total Disbursements made during 1870.	Balances on hand on 31st December 1870.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballarat	3,427 9 8	289 7 8	3,617 16 7	99 0 9
Beechworth... ..	2,633 0 11½	768 15 0	2,703 3 9½	698 12 2
Sandhurst	2,160 16 11	4,128 13 3	3,756 18 10	2,532 11 4
Maryborough	4,593 19 5	1,332 18 10	5,230 17 10	696 0 5
Castlemaine	1,845 10 11	1,716 0 0	2,771 17 9	789 13 2
Ararat	2,172 14 7½	146 0 0	2,187 15 8½	130 18 11
Gippsland	1,971 16 1	552 10 0	2,206 0 2	318 5 11
Totals	18,805 8 7	8,934 4 9	22,474 10 8	5,265 2 8

No. 41.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1870 of Sums lodged with the Wardens' Clerks of the several DIVISIONS of the Mining Districts as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Divisions.	Balances on hand 1st January 1870.	Total Deposits received during 1870.	Total Disbursements made during 1870.	Balances on hand 31st December 1870.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLARAT	Ballarat	128 16 6	30 0 0	128 16 6	30 0 0
	Buninyong... ..	...	...	...	...
	Smythesdale	221 18 8	35 0 0	256 18 8	...
	Creswick	188 8 6	98 18 0	287 6 6	...
	Gordon	*10 0 0	...	...	...
	Steiglitz	818 15 5	80 0 1	874 14 9	24 0 9
	Blackwood... ..	2,035 19 3	45 9 7	†2,046 8 10	45 0 0
	Clunes	23 11 4	...	23 11 4	...
	Totals	3,427 9 8	289 7 8	3,617 16 7	99 0 9
BEECHWORTH	Beechworth	591 9 3	15 0 0	591 9 3	15 0 0
	Yackandandah	120 10 11	20 0 0	120 10 11	20 0 0
	Chiltern	165 7 1	5 0 0	163 14 7	6 12 6
	Rutherglen... ..	53 4 2	...	53 4 2	...
	Morse's Creek	543 10 4	80 5 2	518 9 4	105 6 2
	Jamieson	283 18 8½	15 0 0	215 17 10½	83 0 10
	Wood's Point	266 17 11	150 0 0	257 1 7	159 16 4
	Benalla	75 0 0	16 9 10	90 0 0	1 9 10
	Alexandra	476 6 3	305 0 0	608 1 9	173 4 6
	Mansfield	56 16 4	45 0 0	39 8 3	62 8 1
	Eldorado ... ..	...	117 0 0	45 6 1	71 13 11
	Totals	2,633 0 11½	768 15 0	2,703 3 9½	698 12 2
SANDHURST	Sandhurst	1,515 3 1	3,768 0 2	2,998 1 8	2,285 1 7
	Kilmore	116 0 9	135 0 0	214 9 5	36 11 4
	Heathcote	303 11 8	60 0 0	303 11 8	60 0 0
	Waranga	123 11 2	55 0 0	93 11 1	85 0 1
	Raywood	102 10 3	50 13 1	121 13 11	31 9 5
	Graytown ... ..	...	60 0 0	25 11 1	34 8 11
	Totals	2,160 16 11	4,128 13 3	3,756 18 10	2,532 11 4
MARYBOROUGH	Maryborough	1,032 6 4	473 10 0	1,211 9 8	294 6 8
	Majorca	390 19 4	153 0 0	528 19 4	15 0 0
	Talbot	549 10 0	250 0 0	736 0 0	63 10 0
	Carisbrook... ..	...	...	...	...
	Avoca	258 18 1	110 0 0	328 14 1	40 4 0
	Dunolly	441 19 6	240 0 0	578 1 4	103 18 2
	Tarnagulla... ..	518 19 3	...	506 10 8	12 8 7
	Korong ... ..	...	...	...	...
	Inglewood	177 2 8	61 8 1	181 16 0	56 14 9
	St. Arnaud	1,224 4 3	45 0 9	1,159 6 9	109 18 3
	Totals	4,593 19 5	1,332 18 10	5,230 17 10	696 0 5

* This amount was transferred, on the 11th January 1870, to the public leasing account at Blackwood.

† The £10 mentioned in note * is included in this amount.

No. 41.—RECEIPTS, Disbursements, and Balances in hand during the Year 1870 of Sums lodged with the Wardens' Clerks, &c.—*continued.*

Mining Districts.	Divisions.	Balances on hand 1st January 1869.	Total Deposits received during 1870.	Total Disbursements made during 1870.	Balances on hand 31st December 1870.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
CASTLEMAINE	Castlemaine ...	243 4 7	175 0 0	330 19 2	87 5 5
	Fryerstown ...	358 6 4	170 0 0	471 17 10	56 8 6
	Daylesford... ..	364 11 6	143 0 0	427 17 0	79 14 6
	Taradale	54 14 6	30 0 0	84 14 6	...
	Maldon	496 0 0	107 0 0	551 5 0	51 15 0
	Anderson's Creek ...	207 11 6	911 0 0	686 4 0	432 7 6
	Gisborne	46 5 2	...	46 5 2	...
	Trentham	58 9 8	30 0 0	79 7 8	9 2 0
	Kyneton	16 7 8	150 0 0	93 7 5	73 0 3
	Totals	1,845 10 11	1,716 0 0	2,771 17 9	789 13 2
ARARAT ...	Ararat	259 19 4½	60 0 0	319 19 4½	...
	Beaufort	168 16 6	...	168 16 6	...
	Stawell	1,576 17 4	86 0 0	1,531 18 5	130 18 11
	Landsborough ...	167 1 5	...	167 1 5	...
	Totals	2,172 14 7½	146 0 0	2,187 15 8½	130 18 11
GIPPSLAND...	Omeo	63 14 6	...	63 14 6	...
	Grant	75 0 0	72 10 0	107 0 0	40 10 0
	Bairnsdale	254 0 0	95 0 0	254 0 10	94 19 2
	Sale ... ..	...	...	...	...
	Stringer's Ceeek ...	1,579 1 7	385 0 0	1,781 4 10	182 16 9
	Totals	1,971 16 1	552 10 0	2,206 0 2	318 5 11

No. 42.

RETURN of the QUANTITIES of GUNPOWDER issued, &c., on the several Goldfields during the Year 1870.

Mining Districts.	Quantity In Stock at the commencement of the Year.	Quantity Issued during the Year.	Quantity in Stock at the end of the Year.
	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.
Ballarat District ...	8 2 3 22	35 2 0 11	7 9 2 6
Beechworth District ...	0 17 3 0	2 14 0 0	0 6 3 0
Sandhurst District...	13 2 2 25	106 5 0 0	29 14 3 13
Maryborough District ...	6 7 1 19	16 9 3 6	4 18 2 1
Castlemaine District ...	6 4 2 6	28 2 3 24	3 15 3 16
Ararat District ...	3 10 3 26	16 7 0 16	3 2 2 12
Gippsland District...	0 10 3 21	1 17 1 3	0 13 2 13
Totals	38 17 1 7	206 18 1 4	50 1 3 5

No. 43.

SUMMARY.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1870.

Mining Districts.	Number of Companies.	Number of Shares.	Nominal Capital.
			£
Ballarat District ...	25	84,897	181,995
Beechworth District ...	18	144,135	202,796
Sandhurst District...	349	7,714,059	4,707,194
Maryborough District ...	30	225,976	365,860
Castlemaine District ...	51	208,042	337,876
Ararat District ...	8	13,408	73,896
Gippsland District...	18	53,200	151,900
Totals	499	8,443,717	6,021,517

NOTE.—It appears from the returns forwarded by the Clerks of the Courts of Mines that twenty-three companies have been wound up, with 70,210 shares, and a nominal capital of £289,040, and several companies are in process of being wound up.

(For information relative to companies registered and companies wound up previous to 1st January 1870, see Tables Nos. 43 and 44, *Mineral Statistics*, 1869.)

No. 44.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1870.

Mining Districts.	Courts.					Number of Companies.	Number of Shares.	Nominal Capital.
BALLARAT	Ballarot	...	...	...	10	52,940	78,600
		Blackwood	...	...	...	1	3,000	3,000
		Buninyong	...	...	...	4	8,650	29,800
		Creswick	...	...	...	2	4,048	17,200
		Steiglitz	...	...	...	1	195	975
		Smythesdale	...	...	...	5	7,064	34,420
		Clunes ...	...	...	...	2	9,000	18,000
		Totals	...	...	...	25	84,897	181,995
BEECHWORTH	...	Beechworth	...	...	...	1	1,500	1,500
		Bright ...	...	...	...	...	...	...
		Chiltern	...	...	...	2	69,096	69,096
		Jamieson	...	...	...	3	2,840	5,600
		Mansfield	...	...	...	7	48,799	79,400
		Rutherglen	...	...	...	...	...	...
		Wood's Point	...	...	...	4	18,700	34,400
		Yackandandah	...	...	...	...	...	...
SANDHURST	...	Alexandra	...	...	...	1	3,200	12,800
		Totals	...	...	...	18	144,135	202,796
		Sandhurst	...	...	...	345	7,700,559	4,651,294
		Heathcote	...	...	...	...	...	...
		Kilmore	...	...	...	3	5,500	15,900
		Rushworth	...	...	...	1	8,000	40,000
		Totals	...	...	...	349	7,714,059	4,707,194
		Maryborough	...	...	...	13	126,180	209,140
MARYBOROUGH	...	Amherst	...	...	...	3	6,100	32,500
		Avoca ...	...	...	...	2	4,000	17,500
		Carisbrook	...	...	...	...	...	...
		Dunolly	...	...	...	3	21,000	30,000
		Inglewood	...	...	...	3	56,000	44,000
		St. Arnaud	...	...	...	4	3,696	23,720
		Tarnagulla	...	...	...	2	9,000	9,000
		Totals	...	...	...	30	225,976	365,860
CASTLEMAINE	...	Castlemaine	...	...	...	3	4,800	8,000
		Anderson's Creek and Heidelberg	...	...	...	5	27,792	32,976
		Daylesford	...	...	...	23	70,300	135,950
		Fryerstown	...	...	...	...	...	...
		Kyneton	...	...	...	8	25,650	35,700
		Maldon	...	...	...	5	57,500	57,500
		Taradale	...	...	...	7	22,000	67,750
		Totals	...	...	...	51	208,042	337,876
ARARAT	Ararat ...	...	...	...	3	5,052	25,896
		Beaufort	...	...	...	...	...	...
		Pleasant Creek	...	...	...	5	8,356	48,000
		Totals	...	...	...	8	13,408	73,896
CLIPPSLAND	...	Bairnsdale	...	...	...	8	24,600	51,000
		Sale ...	...	...	...	...	...	...
		Walhalla	...	...	...	10	28,600	100,900
		Omeo ...	...	...	...	...	...	...
		Totals	...	...	...	18	53,200	151,900

No. 45.

RETURN of MINERS' RIGHTS and BUSINESS LICENSES issued in Victoria during the Year 1870.

Place or District where issued.	MINERS' RIGHTS.										BUSINESS LICENSES.					Total Receipts.										
	1 Year at 5s.	2 Years at 10s.	3 Years at 15s.	4 Years at 20s.	5 Years at 25s.	6 Years at 30s.	7 Years at 35s.	8 Years at 40s.	10 Years at 50s.	15 Years at 75s.	Consolidated Miners' Rights. Number.	Represent- ing Single Rights at 5s.	Miners' Rights ante-dated. Fee 5s.	Amount received.					12 Months at 100s.	Transfers at 10s.	Business Licenses ante dated. Fee 25 cents. on License.	Amount received.				
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.					
Mining District of Ballarat ...	14,753	...	...	...	...	...	...	...	...	...	29	1,305	54	4,028	0	0	303	...	...	19	769	7	6	4,797	7	6
Mining District of Beechworth ...	5,497	...	...	...	...	...	...	...	...	...	8	106	8	1,380	5	0	328	1	3	...	826	10	0	2,206	15	0
Mining District of Sandhurst ...	4,530	...	...	...	...	...	...	...	...	...	22	73	...	1,150	15	0	152	...	...	...	380	0	0	1,530	15	0
Mining District of Maryborough ...	4,158	...	...	...	...	...	...	...	...	...	6	51	3	1,053	0	0	172	...	...	...	430	0	0	1,483	0	0
Mining District of Castlemaine ...	4,207	...	...	...	...	...	...	...	...	...	8	76	14	1,076	15	0	76	...	...	1	190	12	6	1,267	7	6
Mining District of Ararat ...	2,102	7	...	10	...	...	...	...	...	...	4	74	27	565	15	0	225	...	2	5	566	12	6	1,132	7	6
Mining District of Gippsland ...	2,499	...	...	...	...	...	...	...	...	...	25	107	3	652	5	0	90	...	...	...	225	0	0	877	5	0
Melbourne ...	448	...	...	...	1	...	...	...	...	...	17	154	2	159	15	0	6	...	...	...	15	0	0	174	15	0
Totals ...	38,104	12	2	10	1	...	...	...	...	...	119	1,946	111	10,066	10	0	1,352	1	5	25	3,403	2	6	13,469	12	6

No. 46.

STATEMENT of the REVENUE directly derived from the Goldfields during the Year 1870, compiled from the Treasury Statements of Revenue, &c.

	£	s.	d.
Amount received for Miners' Rights ...	...	...	...
Amount received for Business Licenses ...	9,934	0	0
Amount received for Leases of Auriferous and Mineral Lands	3,206	12	6
Amount received for Water-right and Searching Licenses	24,307	7	0
	1,946	10	0
Totals	38,494	9	6

NOTE.—Moneys received from holders of and applicants for mining leases under the heads of fees, fines, and forfeitures, are not included in this return.

No. 48.

THE PRICES OF MINING MATERIALS in some of the more important Mining Centres are as follow :—

BALLARAT.—Castings : Iron puddling machines, 16s. per cwt. ; iron harrows, 16s. per cwt. ; lift-pumps, from 6 in. to 22 in., including workings and connections, 21s. per cwt. ; winding and pumping gear, 27s. per cwt. ; water pipe, 13s. 6d. per cwt. ; stamping batteries, with iron frames and fittings connected with 10 stamps, say 10 cwt. per stamp or hammer, according to construction or design, 40 in., iron with wood framing, £30 to £37. Gaspipes, $\frac{3}{4}$ in. to 2 in., 4d. to 1s. 6d. per foot. Iron rivets, £1 8s. to £2 10s. per cwt. Chains, round, sizes $\frac{1}{8}$ in. to 1 in., imported, £1 2s. to £2 5s. per cwt. ; do., do., made at Ballarat, £1 17s. 6d. to £5 10s. per cwt. Rope : Flat wire, 3 in. x $\frac{1}{8}$ in. to 4 in. by $\frac{1}{8}$ in., £3 5s. to £3 15s. per cwt. ; flat hemp, $4\frac{1}{2}$ in. to 6 in., £3 12s. per cwt. ; round manilla, different sizes, £3 5s. per cwt. Powder, glazed blasting, £2 10s. per 100 lbs. Fuze : Single tape, 9s. per dozen coils ; double tape, 12s. to 13s. per dozen coils. Candles, sperm, 11s. per dozen lbs. Oil : Olive, 6s. 6d. to 7s. per gallon ; colza, 5s. 6d. per gallon ; castor, 6s. 6d. to 7s. per gallon ; kerosene, 3s. per gallon. Tallow : beef and mutton, £1 17s. 6d. per cwt. Quicksilver, 3s. 6d. per lb. Picks, single-ended driving and sinking, £2 8s. to £2 14s. per dozen ; double-ended, £2 8s. to £3 per dozen. Pick-hilts ; Hickory, 13s. to 15s. per dozen ; colonial, lightwood, 6s. to 10s. 6d. per dozen. Shovels ; long-handled, £3 to £4 per dozen ; D-handled, £2 8s. to £3 16s. per dozen ; cornish, socket-handled, £2 14s. per dozen. Shovel-handles : English, 18s. per dozen ; colonial, 10s. to 12s. per dozen. White Yarn : Flax packing, 1s. 4d. to 1s. 6d. per lb. ; hemp packing, 10d. to 1s. 1d. per lb. Iron : Common, 15s. per cwt. ; best Lowmoor, £1 14s. to £1 18s. per cwt. Leather : Colonial, for pumps, 1s. to 2s. per lb. ; English, 2s. 3d. to 3s. per lb. ; belt leather, colonial, 2s. per lb. Gutta percha : Sheet, for pump-clacks, 7s. 6d. per lb. ; tubing, 9s. per lb. Steel : Cast, £2 16s. to £3 5s. 4d. per cwt. , blister, £1 12s. to £2 16s. per cwt. ; shear, £3 5s. 4d. per cwt. ; spring, £1 17s. 4d. per cwt. ; Stubbs' No. 2, £3 14s. 8d. per cwt.

CRESWICK.—Castings : Stamp-head and beds, 15s. to 17s. per cwt. ; wheels, &c., 24s. per cwt. Hemp rope, 3 in. to 8 in., 82s. 6d. per cwt. Blasting powder, 6d. to 8d. per lb. Fuze, 12s. to 13s. per dozen coils. Candles, 11s. to 12s. per dozen lbs. Oil : Colza, 5s. 6d. per gallon ; machine, 6s. 6d. per gallon. Tallow, 40s. per cwt. Quicksilver, 2s. 3d. to 3s. 6d. per lb. Picks, 48s. to 72s. per dozen. Pick-handles, 11s. to 16s. per dozen. Shovels, long-handled, 60s. to 74s. per dozen. Leather, English, for pumps, 2s. 6d. per lb. Cotton waste, $7\frac{1}{2}$ d. to 8d. per lb. Iron, common, 15s. per cwt. Steel : Cast, 60s. per cwt. ; blister, 46s. per cwt. Sheet indiarubber, 3s. to 4s. 6d. per lb.

BRIGHT.—Castings, plain, 30s. per cwt. Hemp and wire rope respectively, 84s. per cwt. Chain, small and medium, 56s. per cwt. Blasting powder, 10d. to 1s. per lb. Indiarubber, double-tape fuze, per dozen coils, 14s. 6d. to 15s. 6d. Best sperm candles, per dozen lbs., 14s. to 14s. 6d. Oils : Colza, 8s. to 9s. per gallon ; chinese, 8s. to 9s. per gallon ; olive, 8s. 6d. to 10s. per gallon ; kerosene, 5s. per gallon. Quicksilver, 3s. to 3s. 6d. per lb. Picks (Collins') double-ended, 84s. per dozen ; ditto, ditto, single-ended, 72s. per dozen. Handles, 20s. to 21s. per dozen. Best long-handled shovels, 84s. to 90s. per dozen ; ditto, ditto, short-handled, 72s. to 78s. per dozen. Leather : Colonial, 2s. 6d. per lb. ; English, 3s. 6d. per lb. Common iron, 32s. per cwt. Steel : Cast, 84s. per cwt. ; blister, 84s. Carriage, in summer, £7 per ton ; in winter, £17 10s. per ton.

WOOD'S POINT.—Castings of white metal (hematite), such as stamp-heads, &c., 32s. per cwt. ; extra thicknesses, 80s. per cwt. Powder, best glazed, 75s. per 100 lbs. Fuze, 14s. per dozen coils. Candles, Neva, 15s. per dozen lbs. Oil : Castor, 10s. per gallon ; olive, 10s. per gallon. Quicksilver, 3s. 6d. to 4s. per lb. Mining pick-heads, 18s. per dozen. Pick-handles, 18s. per dozen. Shovels : Long-handled, 105s. per dozen ; short-handled, 84s. per dozen. Leather-belt and grain, 1s. 6d. per lb. ; vulcanized indiarubber belting, four-ply, 4s. per foot. Iron, best wrought, 37s. 6d. per cwt. Steel : Cast, 76s. per cwt. ; blister, 72s. per cwt. Nuts and bolts, 1s. per lb.

The Big River district is chiefly supplied from Darlingford ; the prices are about 5 per cent. above those in the Wood's Point district.

SANDHURST.—Stamper-boxes, £17 per ton ; stamper-heads and shoes, £16 per ton. Pump-piping, 17s. 6d. to 18s. per cwt. Water-pipe, English, 15s. per cwt. Belt-pulleys, 26s. to 27s. per cwt. Cams, 93s. per cwt. Discs, 90s. per cwt. Iron rails, £14 to £15 per ton. Bar iron, BBH, 16s. per cwt. Steel, octagon, 54s. per cwt. ; blister, 6d. per lb. ; double shear, $6\frac{1}{2}$ d. Nails, 28s. per cwt. Gratings or sieves for stamper-boxes, 1s. 6d. per square foot. Quicksilver, 3s. 9d. per lb. Sheet copper, 1s. 6d. per lb. Shovels : Short-handled, 56s. to 72s. per dozen ; long-handled, 60s. to 75s. Picks, 45s. to 48s. per dozen. Pick-handles : Colonial, 7s. to 9s. per dozen ; American, 12s. to 15s. per dozen. Candles, best, 4s. 2d. per dozen lbs. ; sperm, 10d. to 1s. 0 $\frac{1}{2}$ d. per lb. Oil : Olive, 7s. per gallon ; colza, 6s. ; castor, 6s. ; uentsfoot, 7s. ; kerosene, 3s. Tallow, $3\frac{1}{2}$ d. to 4d. per lb. Powder, Hall's, 8 $\frac{1}{2}$ d. per lb. ; other brands, 7d. to $7\frac{1}{2}$ d. Fuze : Bickford's double tape, 11s. per dozen ; single, 9s. per dozen. Pump-leather : Colonial, 1s. 2d. per lb. ; English, 2s. 6d. to 3s. 6d. per lb. ; leather belting, 10d. to 4s. per foot. Rope wire, $\frac{1}{2}$ in. to 3 in., from 50s. to 60s. per cwt. Engine-packing, 1s. to 1s. 6d. per lb. Cotton waste, 7d. to 9d. per lb. Nitric acid, 1s. 6d. per lb. ; muriatic acid, 9d. to 1s. per lb. Bolts and nuts, 4d. to 5d. per lb. Sheet india-rubber, 4s. to 5s. 6d. per lb. ; indiarubber belting, 8d. to 8s. per foot, according to size. Copper rivets and tacks, 2s. 6d. per lb. Gun-cotton, £1 per box.

MARYBOROUGH.—Castings : Whim and truck wheels, 18s. per cwt. ; chains, short links, &c., 42s. per cwt. Rope, manilla, $\frac{1}{2}$ in. to 1 in., 10d. per lb. ; ditto, 1 in. to 6 in., 70s. per cwt. Powder, blasting, 66s. 8d. per 100 lbs. Fuze, colonial, 12s. per doz. coils. Candles, sperm, 12s. per doz. lbs. Oils : Colza, 6s. per gallon ; castor, 6s. per gallon ; kerosene, 3s. to 3s. 3d. per gallon ; olive, 8s. 6d. per gallon. Quicksilver, 3s. 6d. per lb. Iron, best BBH, 17s. per cwt. Steel, cast, 60s. per cwt. ; blister, 47s. per cwt. ; shear, 56s. per cwt. Leather : English hide, 2s. 6d. per lb. ; belt, 1s. 10d. per lb. Tallow : Mutton, 31s. per cwt. ; beef, 30s. per cwt. Green hides for buckets, 21s. each. Picks, driving and sinking, single ends, weight 3 to 6 lbs., 30s. to 60s. per doz. Pick-hilts, colonial, 9s. per doz. Shovels, American, 66s. to 72s. per doz.

CASTLEMAINE.—Castings : Heavy, as boxes, stamps, &c., 17s. 6d. per cwt. ; wheels, gear, &c., 20s. to 22s. per cwt. ; pipes, pumps, &c., 15s. to 20s. per cwt. Rope, manilla, 73s. to 75s. per cwt. Powder, blasting, 83s. per cwt. Fuze, double tape, 13s. per doz. coils. Candles, sperm, 11s. to 12s. per doz. lbs. Oil : Colza, 7s. per gallon ; olive, 8s. 6d. per gallon ; castor, 6s. 6d. per gallon. Tallow, 28s. per cwt. Pick-hilts, 9s. to 15s. per doz. Shovels, American, 63s. to 74s. per doz. Leather, colonial, 10d. to 1s. 4d. per lb. ; English, 2s. to 3s. per lb. Cotton waste, 9d. per lb. Iron, BBH, 16s. per cwt. Steel : Cast, 64s. per cwt. ; blister, 50s. per cwt.

MALDON.—Castings : Stamp-heads, 17s. to 18s. per cwt. ; chains, common, $\frac{5}{8}$ to $\frac{7}{8}$ in., 46s. 8d. per cwt. Rope, manilla, 8-inch, 70s. per cwt. Powder, Hall's, 75s. per 100 lbs. Fuze, Bickford's, 13s. per doz. coils. Candles : Tallow, 5d. per lb. ; sperm, 11d. per lb. Oil : Colza, 6s. 6d. per gallon ; castor, 7s. 6d. per gallon. Tallow, mutton and beef, 37s. per cwt. Quicksilver, 2s. 11 $\frac{1}{2}$ d. per lb. Picks, hammer-headed, 11d. per lb. Pick hilts, 9s. to 12s. per doz. Shovels, long-handled, 6s. to 6s. 6d. each ; English, short-handled, 5s. 6d. to 6s. 6d. each. Leather, English hide, 3s. per lb. Cotton waste, 9d. per lb. Hemp, engine-packing, 1s. 9d. to 2s. per lb. Iron, 17s. per cwt. Steel : Cast, 56s. per cwt. ; blister, 56s. per cwt.

ARARAT.—Castings : Fire-bars, truck wheels, &c., per cwt., 24s. Rope, manilla, 7-inch, 72s. per cwt. Powder, blasting, 90s. per cwt. Fuze, 14s. per doz. coils. Candles, stearine, 11s. 6d. per doz. lbs. Oil, colza, 6s. 6d. per gallon. Tallow, beef, 42s. per cwt. Picks, common driving, 42s. per doz. Pick-handles, she-oak, 9s. per doz. Shovels, short handles, 55s. per doz. Leather, English butts, 2s. 9d. per lb. Iron, best wrought, 16s. 6d. per cwt. Steel, cast, 60s. per cwt.

BENDOC.—Oils : Castor, about 7s. 6d. per gallon ; kerosene, 3s. 6d. per gallon. Quicksilver, 2s. 6d. per lb. Candles, sperm, 14s. per doz. lbs. Stamp-heads, shoes, and bottoms, 30s. per cwt. Shovels (Collins's), short-handled, 70s. per doz. ; long handled, 96s. per doz. Picks (Collins's) : Hammer-headed, 70s. per doz. ; double-ended, 78s. per doz. Pick-handles, 12s. to 16s. per doz. Iron, 30s. per cwt. Steel, 60s. per cwt. Powder, blasting, 1s. per lb. Rope, manilla, 5-inch, 78s. per cwt. ; ditto, 2 $\frac{1}{2}$ -inch, 78s. per cwt.

TABLE showing approximately the QUANTITY and COST of TIMBER consumed annually for Mining Purposes in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

				Firewood, &c.	Props and Cap-pieces	Laths and Slabs	Sawn Timber		£	s.	d.
BALLARAT	...	...	{	320,601 tons	1,650,555 pieces	4,274,798 pieces	5,772,110 feet		203,024	4	7
BEECHWORTH	...	...	{	45,600 tons	155,778 pieces	566,050 pieces	706,200 feet		33,639	17	4
SANDHURST	...	...	{	129,750 tons	290,300 pieces	1,174,500 pieces	614,800 feet		91,551	8	4
MARYBOROUGH	...	...	{	98,373 tons	198,071 pieces	809,182 pieces	786,987 feet		53,647	4	3
CASTLEMAINE	...	...	{	68,190 tons	142,791 pieces	109,143 pieces	456,100 feet		29,581	14	5
ARARAT	...	...	{	91,360 tons	19,302 pieces	70,021 pieces	250,000 feet		23,934	0	11
GIPPSLAND	...	...	{	12,744 tons	37,656 pieces	18,802 pieces	202,581 feet		9,508	4	3
Total Cost				...	...	...	...		£444,886	14	1

No. 50.

THE FOLLOWING PARTICULARS, which have been collected by the Mining Surveyors and Registrars, relate to the weight and cost of the Stamp-heads and Shanks or Lijters made use of in some of the principal Gold Mines in the several Mining Districts, and supply additional information connected with the process of crushing Quartz.

In the BALLARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. 2 qrs. to 8 cwt., and the cost is from £3 10s. to £32. The height the stamp-head falls ranges from 7 to 10 inches. The number of strokes made per minute is from 50 to 84. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 5 cwt. to 3 tons 10 cwt. The number of holes per square inch in the gratings used is from 54 to 225. The horse-power required to work each stamper is from 0·75 to 1·5. The quantity of water used per stamp-head in crushing varies from 300 gallons to 600 gallons per hour. The quantity of mercury used in the ripples per stamper is from 9 to 38 lbs. The quantity of mercury lost per stamp-head per week is from *nil* to 3 ozs.

In the BEECHWORTH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 2 cwt. to 8 cwt., and the cost is from £1 2s. to £27 10s. The height the stamp-head falls ranges from 7 to 18 inches. The number of strokes made per minute is from 40 to 75. The quantity of quartz crushed per head per diem of 24 hours varies from 18 cwt. to 3 tons. The number of holes per square inch in the gratings used is from 64 to 144. The horse-power required to work each stamper is from 0·75 to 2. The quantity of water used per stamp-head in crushing varies from 70 gallons to 450 gallons per hour. The quantity of mercury used in the ripples per stamper is from 4 to 50 lbs. The quantity of mercury lost per stamp-head per week is from *nil* to 10 lbs.

In the SANDHURST MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. to 8 cwt., and the cost is from £1 to £18. The height the stamp-head falls ranges from 8 to 14 inches. The number of strokes made per minute is from 64 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 15 cwt. to 4 tons. The number of holes per square inch in the gratings used is from 64 to 180. The horse-power required to work each stamper is from 0·875 to 1·25. The quantity of water used per stamp-head in crushing varies from 210 to 400 gallons per hour. The quantity of mercury used in the ripples per stamper is from 15 to 50 lbs. The quantity of mercury lost per stamp-head per week is from 6 dwts. to 4 ozs.

In the **MARYBOROUGH MINING DISTRICT** the stamp-heads and shanks or lifters vary in weight from 5 cwt. 1 qr. 12 lbs. to 8 cwt, and the cost is from £1 to £20. The height the stamp-head falls ranges from 8 to 13 inches. The number of strokes made per minute is from 55 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 3 tons. The number of holes per square inch in the gratings used is from 80 to 144. The horse-power required to work each stamper is from 0·3 to 2. The quantity of water used per stamp-head in crushing varies from 16 to 1000 gallons per hour. The quantity of mercury used in the ripples per stamper is from 6·33 to 45 lbs. The quantity of mercury lost per stamp-head per week varies from 0·5 to 20 ozs.

In the CASTLEMAINE MINE DISTRICT the stamp-head and shanks or lifters vary in weight from 3 cwt. to 8 cwt., and the cost is from £4 to £28. The height the stamp-head falls ranges from 6 to 15 inches. The number of strokes made per minute is from 50 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 17 cwt. to 4 tons. The number of holes per square inch in the gratings used is from 70 to 160. The horse-power required to work each stamper is from 0.50 to 1.25. The quantity of water used per stamp-head in crushing varies from 5 to 650 gallons per hour. The quantity of mercury used in the ripples per stamp-head is from 5 to 40 lbs. The quantity of mercury lost per stamp-head per week varies from 0.25 to 24 ozs.

In the ARARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. to 8 cwt., and the cost is from £5 to £25. The height the stamp-head falls ranges from 6·5 to 10 inches. The number of strokes made per minute is from 60 to 75. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons. The number of holes per square inch in the gratings used is from 90 to 256. The horse-power required to work each stamper is 1. The quantity of water used per stamp-head in crushing varies from 220 to 800 gallons per hour. The quantity of mercury used in the ripples per stamper is from 25 to 75 lbs. The quantity of mercury lost per stamp-head per week is from 1·75 to 3·2 ozs.

In the GIPPSLAND MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 2 cwt. 2 qrs. to 8 cwt., and the cost is from £1 14s. to £65. The height the stamp-head falls ranges from 7 to 10 inches. The number of strokes made per minute is from 40 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 15 cwt. to 2 tons 18 cwt. The number of holes per square inch in the gratings is from 70 to 210. The horse-power required to work each stamper is from 0.50 to 1.66. The quantity of water used per stamp-head in crushing varies from 2 to 1042 gallons per hour. The quantity of mercury used in the ripples per stamper is from 4 to 120 lbs. The quantity of mercury lost per stamp-head per week varies from *nil* to 12 ozs.

MINERALS OTHER THAN GOLD.

No. 51.

RETURN of the NUMBER of LEASES in force on the 31st December 1870 for the purpose of Mining for
METALS AND MINERALS OTHER THAN GOLD.

Names of Metals and Minerals.						Number of Leases.	Area.		
							A.	R.	P.
Antimony	...	...	...	...	...	9	178	0	10
Coal	...	...	...	...	...	3	1,843	0	35
Copper	...	...	...	...	...	1	625	0	12
Copper, Tin, and Manganese	...	...	...	...	...	1	100	1	30
Flagging	...	...	...	...	...	1	5	0	0
Galena	...	...	...	...	...	1	450	3	0
Galena (argentiferous)	...	...	...	...	...	1	154	1	32
Lignite	...	...	...	...	...	2	496	0	15
Silver	...	...	...	...	...	7	509	2	26
Slate	...	...	...	...	...	4	409	1	11
Sulphate of Iron	...	...	...	...	...	1	18	3	23
Tin, and the Ores of Tin	...	...	...	...	...	4	592	0	24
Totals						35	5,383	0	18

No. 52.

RETURN showing the NUMBER of LICENSES to SEARCH for METALS or MINERALS OTHER THAN GOLD
issued during the Year 1870.

Names of Metals or Minerals.	Number of Licenses.	Extent of Ground held under Licenses.		
		A.	R.	P.
Antimony	5	258	1	25
Clays	1	342	0	0
Coal	6	2,127	0	0
Copper and Ores of Copper	1	640	0	0
Copper and Galena	2	1,280	0	0
Galena	2	1,280	0	0
Galena (argentiferous)	3	740	0	0
Slate	4	190	0	0
Sulphate of Iron... ..	1	6	0	0
Totals	25	6,863	1	25

NOTE.—Fees are charged for Searching Licenses in accordance with the following scale :—

For an area exceeding 320 acres, but not exceeding 640 acres, per annum ..	..	..	£	s.	d.
" " 160 "	"	320 "	10	0	0
" " 80 "	"	160 "	5	0	0
" " 64 "	"	80 "	2	10	0
And for any area not exceeding 64 acres ..	..	..	1	5	0
			1	0	0

(Vide Notice published in the *Government Gazette* of 2nd December 1864.)

No. 53.

RETURN of the NUMBER of MINERAL LEASES issued in the Year 1870 and the EXTENT of GROUND LEASED.

Names of Metals and Minerals.						Number of Leases.	Area.		
							A.	R.	P.
Antimony	...	...	...	...	...	4	168	3	35
Coal	...	...	...	...	...	3	1,843	0	35
Flagging	...	...	...	...	...	1	5	0	0
Galena	...	...	...	...	...	1	450	3	0
Galena (argentiferous)	...	...	...	...	...	1	154	1	32
Lignite	...	...	...	...	...	2	551	2	23
Slate	...	...	...	...	...	2	61	2	25
Sulphate of Iron	...	...	...	...	...	1	18	3	23
Tin, and the Ores of Tin	...	...	...	...	...	4	590	1	0
Totals						19	3,844	3	13

METALLIFEROUS MINERALS, COAL, LIGNITE, CLAYS, SLATES,
AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

According to the returns made to the department, the following quantities have been raised :—

	Silver Ores.	Silver.
	tons	ozs. dwts.
Previously—up to 31st December 1869	11,348	18,353 8
From 1st January to 31st December 1870	Nil	Nil
Totals	11,348	18,353 8

The following statement of Exports has been supplied by the Customs Department :—

Year.	Silver Ores.	Silver.
	tons cwt.	ozs. dwts.
	10 6	...
1861 ... ..	...	4,207 15
1864 ... ..	...	4,954 0
1865 ... ..	...	366 2
1867 ... ..	...	5,604 9
1868 ... ..	...	Nil
1869 ... ..	...	Nil
1870 ... ..	...	Nil
Totals	10 6	15,132 6

According to the Customs returns, 200 ozs. (not the produce of Victoria) were exported during the year 1870.

Some of the gold got from the mines at St. Arnaud was mixed with silver; the alloy was worth from 28s. to 50s. per ounce.

Up to 31st December 1870 forty-six leases of land had been granted, for an aggregate area of 2,000 a. 3 r. 26 p. Of these twenty-three have been declared void for non-fulfilment of covenants, and sixteen have been surrendered to obtain new leases.

The Warden's Clerk at St. Arnaud reports that the large companies which have hitherto been working the silver mines in that district have ceased operations. One of the companies report having raised 370 tons of ore containing silver and gold.

An interesting report on an argentiferous galena lode will be found under the heading of "Lead."

Three licenses were issued in 1870 to search for argentiferous galena, embracing an area of 740 acres.

One lease in the Gippsland district, area 154 a. 1 r. 32 p., was issued.

Seven leases for silver, comprising an aggregate area of 509 a. 2 r. 26 p., were in force on 31st December last, and one for argentiferous galena, for 154 a. 1 r. 32 p.

Native silver has been found near Landsborough with gold, copper, and lead in thin veins of quartz in sandstone.

TIN.

The following statement of Exports has been received from the Customs Department :—

TIN ORE.					tons cwt.
Previously—up to 31st December 1869 ... ..	...	...	...	...	3,140 2
From 1st January to 31st December 1870 ... ..	...	...	...	...	146 15
Total ... ..	...	...	...	...	3,286 17
TIN.					lbs.
Previously—up to 31st December 1869 ... ..	...	...	...	...	27,200
From 1st January to 31st December 1870 ... ..	...	...	...	...	1,680
Total ... ..	...	...	...	...	28,880

Mr. Warden Alley reports as follows :—

"In the Beechworth division there was raised during the year 1870, black sand (tin), from Eldorado, 150 tons; Sebastopol, 10 tons; Woolshed, 15 tons; other localities, 40 tons; or a total of 215 tons. Value on the spot, from £40 to £50 per ton; value in England, £70 to £80 per ton.

"Quantity of tin smelted, 28 tons; yield, 65 per cent. Value on the spot, £124; and in England, £128 per ton.

"The working of two tin lodes discovered near Beechworth has been discontinued, as neither of them proved payable, although it is believed that the lode discovered by Mr. Hensley would pay were it more fully developed, as the indications are very good. Some ore from this lode, on being smelted, turned out a metal of very superior quality.

"The reported discovery of a lode of tin on the ranges above Clear Creek, Eldorado, has proved false, it being merely a deposit of black sand (stream-tin) in cement, but so situated between the surrounding granitic rocks as to induce the belief, at first sight, that it was a lode. The cement is being crushed in small quantities, and proves remunerative."

During the early part of the year several discoveries of stream-tin and tin veins were made near Beechworth. At Chiltern, the Mining Registrar reports that tin ore is found in the Black Dog and Deep Creeks, associated with coarse gold.

At Beechworth, the Mining Registrar reports as follows :—"Several of the smaller creeks are being worked for (black sand) tin. This class of mining is now employing an increased number of men, and in wet seasons it is generally more profitable than gold mining. Doubtless, in years to come, tin-streaming in this division will be the regular avocation of a large number of men, as every creek and gully falling from both sides of the ranges contains black sand."

Mr. E. J. Dunn, of Beechworth, reports that the granite at that place is generally coarse-grained, and traversed by dykes of curite with small threads of quartz and tin crossing it diagonally. After referring to another stanniferous dyke, he says there is a large number of tin-bearing lodes near Beechworth, and he believes that tin will yet be one of the principal products of the district.

No applications have been made during the year for searching licenses.

Four new leases were issued, embracing an area of 590 a. 1 r., one of which was afterwards declared void. On the 31st December four leases were in force, the total area leased being 592 a. 0 r. 24 p.

COPPER.

According to the returns received, the following quantities of Copper Ore have been raised :—

Previously—up to 31st December 1869...	...	...	...	...	tons. 855
From 1st January to 31st December 1870	...	...	...	...	Nil
Total	...	...	...	...	855

The following statement of Exports has been received from the Customs Department :—

Previously—up to 31st December 1869...	...	...	...	...	tons	cwt.
From 1st January to 31st December 1870 (copper ore)	...	...	...	...	73	15
					11	0
Total	...	...	...	...	84	15

No work was carried on at the Thomson River Copper Company's mine during the year 1870.

One searching license, over an area of 640 acres, has been issued for copper and the ores of copper, and two for copper and galena; these two comprise 1280 acres.

One lease was in force on 31st December 1870, for an area of 625 a. 0 r. 12 p.

The Mining Registrar for the Bendoc subdivision reports as follows :—"About twelve miles from Bonang, en route to Snowy River, they have discovered very good indications of a copper lode, which appears to improve the deeper they get."

At Granite Flat, Snowy Creek, a vein containing copper was discovered, 2 inches thick on the surface, and 8 inches at a depth of 16 feet.

ANTIMONY.

According to returns received, the following quantities have been raised :—

ANTIMONY ORE.					tons	cwt.
Previously—up to 31st December 1869 ...	...	...	...	...	4,371	15
From 1st January to 31st December 1870	...	...	...	...	1,661	3
Total	..	..	...	...	6,032	18

The following Statement of the Exports has been received from the Customs Department :—

		Antimony Ore.		Antimony Regulus.		Antimony.	
		tons	cwt.	tons	cwt.	tons	cwt.
Previously—up to 31st December 1869 ...	...	3,276	0	...	...	38	16
From 1st January to 31st December 1870	...	1,052	16	64	8	171	9
Totals ..	...	4,328	16	64	8	210	5

Of the total quantity, namely 1661 tons 3 cwt., raised during the year, 1329 tons were obtained by the Costerfield Gold and Antimony Mining Company (registered), and 110 tons by the Alison Gold and Antimony Mining Company. Both of these claims are in the Heathcote division of the Sandhurst mining district.

The Warden at Dunolly reports as follows :—"During the year 1870 antimony was only raised in the claim at Munster Gully. The quantity of quartz yielding the antimony was 1½ tons. Mr. Harrop (the claimholder) informs me that the antimony is intermixed with quartz in a vein averaging from 4 inches to 2 feet, that the oxide and sulphide are mixed together, but that the oxide is more abundant."

Antimony is reported to have been found in an auriferous reef north of Merton, and at Buchan associated with galena.

At Ringwood one claim has obtained 153 tons 13 cwt. 3 qrs. 18 lbs. of oxide during the year, in addition to 15 tons 13 cwt. 1 qr. 18 lbs. of seconds. The former is valued at £5, and the latter at £2 10s. per ton, at the pit's mouth.

Four new leases, comprising an area of 168 a. 3 r. 35 p., were issued during 1870, and on 31st December nine leases were in force, for an aggregate area of 178 a. 0 r. 10 p.

Five licenses to search for antimony were also granted. These embrace an area of 258 a. 1 r. 25 p.

LEAD.

According to returns received, it appears that the following quantities of Lead Ore have been raised :—

Previously—up to 31st December 1869	...	...	...	...	tons. Nil
From 1st January to 31st December 1870	...	...	...	...	100
Total	...	...	...	...	100

In reporting upon a lode of galena and pyrites found near Pereydale, Mr. Mining Surveyor Simpson writes as follows:—

"This ore was found in the Fiddler's Creek Reef, which is situate at the point of a spur of the Pyrences on the northern side of Fiddler's Creek, and about one mile below head of same.

"The reef is from 3 feet to 3 feet 6 inches in width, and well defined. Its strike is about $\frac{N.}{8} 35^{\circ} \frac{W.}{E.}$ Its dip S.W. Its angle of dip about 63° .

"At the place where this ore was found the reef was worked on the underlie.

"About 100 feet in length of reef had been opened out, and worked to a depth of 160 feet on the course of the reef (143 feet vertical), until attaining nearly a hundred feet in depth on course of reef (89 feet vertical). The reef was of an ordinary kind—a yellowish-white or purplish-red honeycombed variety of quartz, the outer edges of the cavities lined with specks of gold. This was followed (at one part only of the 100 feet length above mentioned) by a black variety, similar to stone found at the silver mines, St. Armand. There were only a few feet of this. At about 100 feet on the underlie galena ore was met with, associated with iron pyrites, which filled the entire width hitherto occupied by auriferous quartz. At this depth the horizontal extent of the ores was only 2 feet, but on following the reef down 60 feet below the point these were first met with this extent was regularly increased to 20 feet. Beyond this, either vertically or horizontally, nothing is known, as the workings were flooded, in, I think, October last, and work has not yet been resumed at this part of the lease.

"The first ore obtained seemed to consist of pure galena and pyrites, both in large proportions. On working deeper, however, the latter became considerably less, and the galena associated with another mineral of a similar color, lustre, and hardness, but the crystals much smaller, and not distinctly cubical, which is said to contain a large proportion of silver. As the depth was increased, this latter mineral increased in a greater ratio than the purer galena.

"About 3 cwt. of the ore obtained from the greater depths was shipped to England for analysis, and is said to have produced 75 per cent. of lead, 22 silver, and 3 gold and copper, &c. This I take to be a proportion of the metals as freed from combination with sulphur, &c.

"Three tons were sent to Clunes to be operated on, but the result has not yet been learned.

"The amount of ore altogether taken out must have been, I estimate, about 25 tons; much of this has been crushed along with ordinary auriferous quartz, and realized 15 dwts. of gold per ton on the whole.

"The ore was got out, as in an ordinary quartz reef, by blasting.

"Specimens of galena, similar to those obtained at 100 feet depth on the Fiddler's Creek Reef, have been found about a quarter of a mile to S.E., at a depth of 60 feet, in the West of England Reef, situate on an opposite spur on the south side of Fiddler's Creek. This is not on the same line of reef as the Fiddler's Creek, but considerably to the east of it.

"The sinking in this neighborhood is generally through hard blue rock.

"By what I can learn, it does not appear that Messrs. Clapperton contemplate treating this ore for any other metal than gold."

Since the above particulars were written the following report has been received relative to the ore first obtained in the Fiddler's Creek Reef:—

"Assay Offices and Laboratories,
"Basinghall street, London, E.C., May 3rd 1870.

"Certificate of Full Analysis of Sample of Ore.

Lead	...	...	...	...	...	20.20
Iron	...	...	...	...	...	30.10
Zinc	...	...	...	...	...	3.25
Copper	...	...	...	...	...	0.95
Sulphur	...	...	...	...	...	41.00
Silica, and traces of gold and silver	...	...	...	...	...	4.50
						100.00 per cent.

"The gold amounts to 3 ozs. in ton of 20 cwt.

"The silver amounts to 4 ozs. 15 dwts. in ton of 20 cwt.

"(Signed) J. JOHNSON and SONS,
"Assayers to the Bank of England, H. M. Mint, &c."

Lodes of galena have been opened at Buchan and Murindate, in the Gippsland district, but have not yet been developed.

Seven licenses were granted in 1870 to search for galena, or for galena in association with other minerals (copper and silver), with an aggregate area of 3300 acres.

Two leases were issued during the year, for an aggregate area of 605 a. or 32 p.

COBALT.

At Grant and Boggy Creek, Cobalt has been found associated with manganese.

Mr. Warden Howitt has furnished the following notes on the vein of cobalt ore found at Grant:—

"The Little Dorrit Reef is from 6 to 15 inches wide. The strike is N. 60° W., dip about 60° to 70° to the south and west. A vein of decomposed rock (dyke) is parallel to the reef, and at about 8 feet distance to the north and east. The earthy cobalt is principally found at the back of the reef, and filling breaks. It also shows everywhere in cracks and seams, in fact wherever water can percolate. It is in some breaks in the quartz to be procured in considerable quantity in veins about 3 inches thick. It encrusts all other minerals."

MANGANESE.

Mr. Warden Dowling reports that Mr. Bland, the manager of the Port Phillip Company's Works at Clunes, has informed him "That manganese ore has been found in the mine of the Clunes Company, but no steps have been taken towards the opening up or working of the mineral."

From Bairnsdale Mr. Warden Howitt thus writes:—"A considerable deposit of manganese ore, probably Psilome-lane, is reported as being situated near Mount Taylor. It has not been worked, nor have I yet found opportunity of inspecting it. Small veins of manganese ore are frequent."

Ores of manganese occur in large quantities in many parts of the colony, both in the veins and in the alluviums.

COAL AND LIGNITES.

COAL.

According to returns received, it appears that the following quantities have been raised:—

					tons.
Previously—up to 31st December 1869 ...	...	...	...	...	1,933
From 1st January to 31st December 1870 ...	...	...	...	...	100
Total	...	...	...	...	2,033

It is stated that in the mine (Kileunda Coal Mine—Bass), where the 100 tons were obtained, the seams are traced and proved to exist along the strike S.E. and N.W. about 50 chains, and dipping N.E. 9° inland, 2 feet in thickness, and of excellent quality, bituminous, solid, and unmixed with shale, &c.

A systematic search is being continued for this mineral, and six searching licenses were issued during the year, representing an aggregate area of 2127 acres. One of these is inside Port Phillip Bay, and the others are all in the Western Port district, on the coast line of Bass's Straits.

On 31st December 1870 three leases were in force, comprising an area of 1843 a. 0 r. 35 p. These were all issued during the year.

Coal has recently been reported to have been found near Colac.

LIGNITE.

According to returns received, it appears that the following quantities have been raised :—

Previously—up to 31st December 1869	...	...	...	...	tons. 465
From 1st January to 31st December 1870.	...	...	...	...	532
Total	...	...	...	...	997

A report furnished by the manager of the Brown Coal Company at Lal-lal states that about 374 tons of lignite have been raised during 1870, of which about 150 tons have been used for experimental purposes, with the view of testing the effect of lignite in comparison with firewood and coal ; these experiments have, in all instances, turned out most satisfactorily, and extensive preparations have been made at the mine for raising and storing large quantities of lignite in anticipation of large orders.

No searching licenses were issued during the year for lignite.

Two leases were issued during the year, for an aggregate area of 551 a. 2 r. 23 p.

At Stony Creek, Daylesford, a bed of lignite is reported to have been found about 20 feet in thickness.

CLAYS.

According to returns received, the following quantities of KAOLIN have been raised :—

Previously—up to 31st December 1869...	...	...	...	...	tons. 1,757
From 1st January to 31st December 1870	...	...	...	...	Nil
Total	...	...	...	...	1,757

One searching licence for clay, over an area of 342 acres, in the locality of Lal-lal, was issued in 1870.

FLAGS AND SLATES.

FLAGGING.

According to returns received, it appears that the following quantities have been raised :—

Previously—up to 31st December 1869...	...	...	tons	cwt.	square yards.
From 1st January to 31st December 1870	...	...	1,268	15½	78,500
			2,650	0	160
Totals	...	...	3,918	15½	78,660

SLATES.

The returns received show that there have been raised :—

Previously—up to 31st December 1869...	...	...	Slates.	tons.
From 1st January to 31st December 1870	...	...	1,000	160
			10,000	Nil
Total	...	...	11,000	160

The Warden at Kyneton reports that “a quarry has been opened at Woodend, but as yet no slates or flags have been raised, with the exception of a few of the former as samples.”

The slates included in the above returns for 1870 were obtained from the quarry leased by Messrs. Jordan and Co., in the Gisborne division.

Mr. Warden Heron reports that “Flags, slates, and hearthstones are to be obtained in some parts of the division of Fryer’s Creek, but the inaccessible nature of the country where they can be obtained prevents their being raised with profit.”

About 2600 tons of flagging are reported to have been raised at Barker’s Creek.

Three licenses (each of 50 acres) to search for slate near Woodend were issued, and one of 40 acres at Barker’s Creek.

Two new leases were issued for slate, total area 61 a. 2 r. 25 p. ; and four leases, of the aggregate area of 409 a. 1 r. 11 p., were in force on 31st December. One new lease for flagging was issued during the year, area 5 acres.

MISCELLANEOUS MINERALS.

MAGNESITE.

Magnesite, or carbonate of magnesia, has been found in several parts of the Sandhurst division, and Mr. Warden Cogdon reports that, "if a remunerative price could be obtained for it, it is believed that large quantities of it could be raised."

DIAMONDS.

The number reported to have been discovered is as follows :—

Previously—up to 31st December 1869...	...	...	...	...	67
From 1st January to 31st December 1870	...	...	...	...	8
Total	...	...	...	...	75

Mr. Warden Alley, at Beechworth, records that—

"During the past year, as far as I can ascertain, eight diamonds have been found, only two of them being of sufficient value to require notice."

"One of these, found on the banks of the Sheep Station Creek, Reid's Creek, is the largest diamond yet discovered in the colony, weighing 2.22 carats; it is of a straw color, wanting in lustre, and of an oblong shape. Mr. Crisp, of Melbourne, purchased it for £7. The other stone was found in the Snake-head Creek, Wooragee, weighs 1.31 carats, is a perfect octahedron in shape, straw color, fair lustre. Mr. Turner, of Beechworth, gave the finders £4 for it."

"The systematic search for diamonds and precious stones, commenced by Mr. Hunt at the Woolshed, at the beginning of the year 1870, proved a complete failure. It is evident that these gems do not occur in this locality in such quantities, or of such value, as to render the search for them alone remunerative."

SAPPHIRES, RUBIES, ZIRCONS, GARNETS, TOPAZ, ETC.

Sapphires, zircons, garnets, and other gem-stones are found in the auriferous drifts on nearly all the goldfields. At Axedale, Campaspe River, and the Dry Diggings, Daylesford, sapphires and zircons, of very good color, have been found, and zircons at Steiglitz. Samples of sand received by the department from the Colac Prospecting Company were, on examination, found to contain sapphires, topaz, zircons, black corundum, pleonaste, &c.

Office of Mines,
Melbourne, 18th February 1870.

R. BROUGH SMYTH,
Secretary for Mines.

APPENDICES.

APPENDIX A.

METALS (OTHER THAN GOLD), MINERALS, AND ORES IMPORTED INTO VICTORIA DURING THE YEAR 1870.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.			Quantity.	Value.	Article.			Quantity.	Value.
				£					£
Arsenic	...	...	10 tons	78	Quicksilver	...	...	618 bottles	4,524
Black Sand	...	...	Nil	...	Silver	...	...	Nil	...
Coal	...	...	153,438 tons	163,994	" Ore	...	...	Nil	...
Copper	...	...	9 tons 7 cwt.	664	Slates	...	...	2,652,310 No.	18,628
" Ore	...	...	2 tons 9 cwt.	136	Slate Slabs	...	...	1,176 No.	832
Iron, Pig	...	...	6,185 tons 19 cwt.	25,557	Sulphur	...	...	533 tons 19 cwt.	5,026
Kerosene Shale	...	...	1,165 tons 17 cwt.	5,343	Spelter	...	...	2 tons	38
Lead	...	...	63 tons 3 cwt.	1,356	Tin	...	...	62 tons 7 cwt.	7,872
" Ore	...	...	6 cwt.	3	Zinc	...	...	237 tons 19 cwt.	6,281
" Pig	...	...	839 tons 10 cwt.	17,510				Total	266,950
Metal, Yellow	...	...	130 tons 7 cwt.	9,006					
Quartz	...	...	22 tons 3 cwt.	102					

APPENDIX B.

METALS (OTHER THAN GOLD), MINERALS, AND ORES EXPORTED FROM VICTORIA DURING THE YEAR 1870.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.			Quantity.	Value.	Article.			Quantity.	Value.
				£					£
Antimony	...	...	171 tons 10 cwt.	5,806	Metal, Yellow	...	...	102 tons 19 cwt.	5,709
" Ore	...	...	1,052 tons 16 cwt.	9,088	Quartz	...	...	2 cwt.	10
" Regulus	...	...	64 tons 8 cwt.	1,622	Quicksilver	...	...	38 bottles	364
Arsenic	...	...	3 cwt.	2	Silver	...	...	200 ozs.	40
Black Sand	...	...	146 tons 15 cwt.	9,524	Slates	...	...	1,500 No.	174
Coal	...	...	114 tons 4 cwt.	145	Slate Slabs	...	...	12 No.	10
Coke and Fuel	...	...	30 tons 13 cwt.	90	Spelter	...	...	137 tons 18 cwt.	2,072
Copper	...	...	4 tons 16 cwt.	534	Sulphur	...	...	38 tons 16 cwt.	831
" Ore	...	...	11 tons	100	Tin	...	...	5 tons 12 cwt.	952
Iron, Pig	...	...	45 tons	245	Zinc	...	...	12 tons 13 cwt.	418
Lead	...	...	4 tons 18 cwt.	135				Total	37,871
" Pig	...	...	Nil	...					

NOTE.—The figures in these tables are extracted from the returns published by the Honorable the Commissioner of Trade and Customs. The statements include only raw materials. Thus pig-iron is included, but not bars, rods, plates, or castings; lead and lead ore, but not piping or sheet lead; and so in like manner the others. The returns published by the Customs Department necessarily include all.
The quantities exported include metals, &c., not the produce of Victoria.

APPENDIX C.

RETURN SHOWING THE QUANTITY AND VALUE OF KEROSENE OIL IMPORTED INTO AND EXPORTED FROM THIS COLONY DURING THE YEAR 1870.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Kerosene Oil.				IMPORTED.		EXPORTED.			
				Quantity.		Value.	Quantity.		Value.
Duty paid <i>ex</i> Ship Warehoused				18,296 gallons		£ 2,104	} 418,748 gallons		£ 50,858
				91,313 cases		78,872			
				Total		80,976			

APPENDIX D.

LABORATORY REPORT.

By COSMO NEWBERRY, Esq., B. Sc.

Over one hundred analyses, assays, and examinations have been made during the year; the greater number of which have been made for the purpose of testing the economic value of the substances and specimens received from the mining districts, so that a large percentage of the results of these examinations are of interest only to the senders.

AURIFEROUS ORES.

A number of samples of pyrites—iron, copper, and arsenical, often all intimately mixed together—have been assayed for gold; none have been found to be wholly without gold, though it has varied from results equal to 80 ounces per ton to 3 dwts. Of these samples there were several of interest, as they came from reefs which do not contain sufficient free gold in the quartz to render them payable. But the assay of the pyrites, and the amount of them which appears to be contained in the stone, shows that, by the erection of suitable machinery, and extracting the gold from the pyrites, many of these reefs might be made to give profitable returns. It is still true, however, that the pyrites associated with highly auriferous quartz contains more gold than that with poor quartz; and that, when the pyrites is associated with other sulphides, such as galena, zincblende, tetrahedrite, and the more complex sulphides like boulaugerite and bournonite, the gold obtained on assay is more alloyed with silver than the ordinary reef gold, most of these sulphides containing silver. In the laboratory report of last year I stated that, as a rule, the arsenical pyrites contained poorer gold than the pure iron pyrites, and that, even in some of the highly auriferous reefs at Sandhurst, the arsenical pyrites contained only traces of gold and several ounces of silver per ton. I have, however, met with some samples from the same quartz reefs at Sandhurst which, upon assay, give from ten to fifteen ounces of gold per ton and only traces of silver. I have not yet met with any pure iron pyrites which contains silver alone.

There has been a considerable increase during the year in the number of companies which recognize the value of the sulphides in the quartz which they crush; but still a great quantity is allowed to go to waste, and a loss also takes place of valuable material even with those who have erected machinery for collecting the sulphides, through the want of proper appliances for classifying the ore after it is crushed. The power required to reduce the quartz to the necessary degree of fineness reduces the more brittle sulphides, in a great measure, to the condition of a slime, nearly all of which is lost, being carried away by the water required to separate the coarser portions from the quartz sand; the only way to obviate this is to use proper classifying apparatus—either sieves or settling-boxes.

Several shipments of the auriferous sulphides have been made to England; the finely pulverized material being packed in a moist state in bags or casks. The great danger incurred must be evident to any one who has noticed the tendency which crushed pyrites has to decompose, and the amount of heat evolved when the decomposition is taking place. Many of the substances classed as "hazardous" by ship-owners and insurance companies are much less so than the moist "pyrites-sand" now shipped without question.

The only novel or unusual occurrences of gold which have come under my notice during the year have been some specimens from the Empire Company's claim, near Landsborough, in which gold occurs associated with native silver and copper, chloride of silver, carbonates of copper and lead, and oxide of iron, in a micaceous sandstone, through which pass thin veins of ferruginous quartz. These metals are probably the result of the decomposition of mixed sulphides, such as occur in the Wilson's Reef, St. Arnaud. Three samples of the metal obtained by the miners from this stone gave the following results. I do not know what means were adopted to extract them:—

	I.	II.	III.
Gold ...	197'44	517'442	189'65
Silver ...	755'57	460'272	768'63
Copper ...	46'99	22'286	41'72
Lead ...			
	1000'00	1000'000	1000'00

Gold has been found associated with native copper in many of the quartz veins of the colony, but during the past year I have received specimens of clay slates (silurian) containing these metals, taken from several of the mines at Snake Gully, Blackwood. The gold is in the form of small irregular fragments, often of a spongy character, while the copper is in thin threads or wires. These metals are often found at a considerable distance from the main quartz vein; the rock in which they occur is traversed by innumerable horizontal thin veins of quartz, the denser portions of which contain but little gold.

Another unusual occurrence of gold which has been noticed is in some magnetic oxide of iron gravel from Daylesford. The gravel was in the form of irregular rolled fragments of magnetic oxide, and the gold was found firmly imbedded in them. The decomposition of pyrites containing gold may account for this occurrence.

The only new compound of gold which has been received was one containing 56 per cent. of gold and 44 per cent. of arsenic. It was sent for examination by the manager of the Waterloo Company, Pleasant Creek, who states that he obtained it from the quartz taken from the 380-feet level. The alloy was a yellowish-grey color, brittle, breaking with a crystalline fracture. It was in the form of a drop, flattened on one side, and on the flat side showed some nearly pure gold. I suggested that it had been formed while roasting or burning the quartz, which contains arsenical pyrites and gold, in a kiln, and that the carbonaceous matter had reduced some of the arsenious acid formed in the lowest portions of the kiln to the metallic state, and that the vapor of the metallic arsenic, passing over gold heated to near its melting point, was absorbed, forming the alloy or compound; but the manager of the mine says that the quartz was not burnt, and that the specimen is native, as he obtained it from the quartz.

No similar specimen has been obtained from any other locality.

SILVER AND LEAD.

The native silver from Stawell, just mentioned, is the only sample of that metal sent to the laboratory during the year.

From Gippsland numerous samples of galena have been received. Those from the neighborhoods of Buchan and Corner Inlet appear to be from lodes. Most of the specimens were from or near the surface, were fine grained, and associated with iron and copper pyrites, calcite, sulphate and carbonate of baryta, quartz, and brown spar. Some imperfect crystals of the latter gave carbonate of lime, 59'34; carbonate of magnesia, 12'54; carbonate of iron, 30'12. The yield of lead from the galena was good, averaging about 76 per cent., both from the veins of the Buchan limestone and from Corner Inlet. (I am unacquainted with the nature of the rock in the latter locality.)

Some of the samples from Buchan contain sulphide of antimony, and in parts appear to be about the composition of "plagionite," but the composition varies very much even in small hand-specimens. The antimonial samples gave most silver; none, however, give more than 14 ozs. per ton. Some impure samples of carbonate of lead were also received. They were probably from the outcrops of the lodes mentioned. They were associated with an iron gossau.

A sample of metallic lead was received from Gippsland, but the evidence is against its being native. It was in very small grains, and only slightly coated with carbonate. Some of the grains were drawn out to sharp needle-like points, which could hardly be their condition if they had been long exposed to the action of the surface waters of the alluvial in which they were found. A sample of metallic zinc was also sent from Gippsland, but the evidence in this case is even stronger than in the case of the metallic lead. The zinc was not much oxidized, and had several pieces of carbonized wood passing through it and projecting from the surface.

COPPER.

The copper ores examined have been grey and yellow sulphides and carbonates; they have been received from nearly all the mining districts, more especially from Gippsland; some good specimens have come from the Snowy River, and also from the Thomson, but no well-defined payable lode seems yet to have been discovered; most of the specimens received have been from quartz reefs, and forwarded to be examined for gold and silver. Native copper has been found, as already mentioned, with gold, at Blackwood and Stawell, and also in the bed-rock (silurian slates and shales) under the deep leads at Ballarat. The water from the Rodney Company's mine contained minute traces of copper.

At Malmisbury an interesting discovery was made of metallic copper, in small grains, in the sphärosiderite nodules from the basalt. The copper specks were often in the centre of the concentric colored bands of the sphärosiderite, in the composition of which no copper salts were detected.

COBALT.

No new discoveries have been made in the earthy cobalt ores or manganese ores which contain cobalt, which at one time promised to be of value; the veins of the ore in the clay-slate rocks are not regular or continuous, and are probably comparatively recent infiltrations. Similar ores are found coating the joints of quartz in the reefs above the water-level, but in too small quantity to be profitably collected.

ANTIMONY.

Several new discoveries of antimony have been made, and rather more attention has been paid to the veins already known. Some very good samples have been received from the Upper Yarra, consisting of mixed oxide and sulphide of antimony, containing only a very slight admixture of gangue. Excellent samples of nearly pure metallic antimony, made in the colony, have been tested, and found quite equal to the article manufactured in Europe. The amount of gold and silver in the samples examined has been small.

TIN AND BLACK SAND.

The tin veins of Beechworth were discovered during the year. Samples of the lode first found were examined, and showed the oxide of tin in irregular black grains associated with schörl, iron, and arsenical pyrites, and a pholeritic mineral in a thin vein passing through a fine-grained granite, consisting of white felspar, white mica, and quartz.

Tin sands have been assayed from Beechworth, Yackandandah, Myrtleford Creek, Upper Yarra, Gippsland, and Colac—the latter locality is new. The assays varied from 12 to 69 per cent. of tin, according to the manner of washing and collecting. In most cases the tin sand was associated with gold, titaniferous iron, schörl, and zircon, and, in some samples, with sapphires, spinels (black), pleonaste, and topazes. Other black sands were examined containing no tin; amongst them was one from the Franklin River, which consisted almost wholly of chromic iron in octahedral crystals, resembling the chromic iron-sand from the creek-beds near Heathcote. A sample from Axedale, on the Campaspe, consisted of titaniferous iron, in which there were several small green zircons of beautiful color and brilliancy; they were too small, however, to be of value. A few sapphires have been received from Beechworth; but only one of any value as a gem; the others were either opaque or the color was imperfectly distributed through the stone; none have been found equal to those obtained in New South Wales. Zircons of various shades of color, from white to red, pale yellow and brown, in good crystals, have been received from the vicinities of Blackwood and Yackandandah. Garnets have been found in almost unlimited quantity in the granite near Beechworth.

LIGNITE.

Two or three new discoveries of lignite have been made, but the great amount of ash left after burning will prevent their being used as fuel. An average sample from the deposit at Smeaton burnt with a bright yellow flame, and gave upon analysis in 100 parts—

Water	...	...	...	...	...	27.72
Volatile matter	...	...	...	...	...	15.53
Fixed carbon	...	...	...	...	...	7.08
Ash	...	...	...	...	...	49.67

100.00

A sample from Daylesford gave, when dried—

Volatile matter	...	...	...	...	...	27.47
Fixed carbon	...	...	...	...	...	17.08
Ash	...	...	...	...	...	55.45

100.00

Samples of resins from the great lignite bed of Lal-lal have been received from Mr. Straubel, the manager of the company working the lignite, of which analyses are about to be made.

CLAYS.

Clays from Sandhurst, Beechworth, Geelong, and other localities have been examined. Some of the samples from the two first localities are true kaolins, though not of such fine quality as that obtained at Bulla-bulla. Still they might with but little preparation be used as common "china-body." Clays suitable for tiles, bricks, and the coarser varieties of earthenware, occur in almost every part of the colony, being derived from the volcanic, granitic, and eruptive rocks by the decomposition of the felspar contained in them, and from the sedimentary rocks (upper and lower silurian) by their disintegration by mechanical atmospheric action. These rocks furnish the clays for the brick and tile makers at Brunswick—some of them not only use the clays washed from the rocks but quarry out the shales and mud-stones, and by grinding fit them for use. The silurian rocks and the clays derived from them contain, besides silica and alumina, variable proportions of peroxide of iron (occasionally protoxide), lime, magnesia, and alkalies. In the clays the latter are often in the form of chlorides, probably derived from the surface waters. The kaolins of Bulla-bulla, Beechworth, and Sandhurst are nearly pure hydrous silicates of alumina; from the neighborhood of Geelong, and at other places near the coast, especially where the clays are from the older tertiary rocks, they are often impregnated with sulphate of iron, gypsum, and chlorides, and sulphate of magnesium and sodium.

An examination of the surface and subsoil of the plains near Camperdown has been made for the Crown Lands Department. The plains are described as being covered with scrub and heath. From the analyses it is evident that, to fit the soil for crops, an addition should be made of lime, magnesia, phosphates, and alkalies.

The soils were dried at 212° F., and then found to contain—

	Surface Soil.					Subsoil.
Water	4.64
Sol. organic matter	21.01	...	...	10.69
Iron (Fe. O) and alumina	3.43	...	...	6.74
Lime	0.53	...	...	0.49
Magnesia	0.41	...	...	0.61
Phosphates	traces	...	...	none
Chlorides	traces	...	...	traces
Alkalies	traces	...	...	traces
Sand	66.79	...	...	76.42
	99.70					99.59

Sand suitable for glass-making has been found in the vicinity of Melbourne, and is now used at the Melbourne Glass-works; it contains but little impurity. A sample brought to the laboratory was free from iron.

By Authority: JOHN FERRES, Government Printer, Melbourne.

AUG 3 1871

1872.

VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1871.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority:

JOHN FERRES, GOVERNMENT PRINTER, MELBOURNE.

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MEMORANDUM.

The STATISTICS OF GOLD FOR 1871 show that this branch of industry is in a prosperous state.

Though the number of miners has decreased, there is a considerable increase in the yield of Gold; and if the year 1872 be characterized by the industry and activity which have marked the proceedings of the miners during the previous twelve months, it may safely be predicted that the yield on the average will be much greater than usual.

The veins at Clunes, Stawell, Steiglitz, and Sandhurst are highly productive at great depths; and this fact ought to give confidence to capitalists who have the means of exploring the reefs in other districts, which at the surface were known in past times to be as rich as any of those that now in Sandhurst and Stawell attract so much attention.

In the beds of the shallow alluviums and deep *leads* in the Ballarat district, and at Fiery Creek, Ararat, and Chiltern, there will be found undoubtedly at some time the rich reefs from which the gold in these deposits was derived; and there are perhaps no more promising fields for the prospector than these areas. As the *leads* were rich, so unquestionably are the reefs from which the gold came; and those reefs when discovered and developed will add immensely to the yield of gold.

It is to be hoped that some efforts will be made in a short time to open up the Coalfields of the colony, and that the profits to be derived from raising Tin, Antimony, and other Metalliferous Ores, will induce those skilled in this kind of mining to devote their labors to the exploration of such parts of the colony as are rich in these deposits.

WILLIAM McLELLAN,
Minister of Mines.

Office of Mines,
Melbourne, 20th April 1872.

MINERAL STATISTICS, 1871.

UP to the present mine-owners and mining managers have, as a rule, given information respecting the results of their operations quite freely ; but during the past year, perhaps in consequence of so much speculation in mining scrip, there has been in one or two districts great difficulty in getting returns of the yield of gold from the mines. It would be unfair and unwise to exact too much from the mine-owners ; but as they can give such returns under the pledge of secrecy, just as the managers of banks give the accounts of the gold bought, it seems certainly unjust to the interests of the colony to withhold them ; and if a better spirit be not evinced, it may be necessary to apply to claimholders the same law which requires leaseholders to make periodical returns of the results of their operations.

That the Department of Mines should not be able to state the exact produce of gold from the thousands of tons of quartz crushed in the Sandhurst district for instance, where the yields are very great, is surely not creditable, and yet, though the officers of the Department use their best exertions to get the results, they fail, because some of the managers are either indifferent or raise objections when they are asked to give returns.

GOLD.

It is impossible to state what quantity of gold is raised in any year ; but the following figures afford data on which estimates may be founded :—

	1870.				1871.		
	ozs.	dwt.	grs.		ozs.	dwt.	grs.
Exported, according to returns furnished by the Hon. the Commissioner of Trade and Customs ...	1,222,798	3	0	...	1,355,477	3	0
Raised, according to the estimates made by the Mining Registrars... ..	1,304,305	6	0	...	1,368,942	9	4
Purchased by the several banks, from returns made by the managers	1,244,910	16	20	...	1,290,844	18	1

It is probable that quantities of gold, of which no account can be obtained, are taken out of the colony every year—much from North-Eastern Gippsland, and some from other goldfields—by private hands ; but notwithstanding, it is clearly the fairest way, in estimating the results of the operations of the miners, to rely on the returns made by the Department of Trade and Customs, and in the Report for this year, as formerly, all calculations will be based on the figures furnished by that Department.

The increase in the yield of gold during the year 1871 as compared with 1870 is, measured by the exports, 132,679 ozs. ; according to the returns made by the Mining Registrars, 64,637 ozs. 3 dwts. 4 grs. ; and from the statements furnished by the managers of the several banks, 45,934 ozs. 1 dwt. 5 grs. The quantities of gold exported up to the 31st December in each year may, from circumstances altogether unconnected with the yield of gold, exceed or fall short of the total produce for the year ; but the estimates furnished by the Mining Registrars and the returns made by the managers of the several banks are very valuable. The latter the managers give on the understanding that the total sums only will be used. The promptitude with which they meet the demands of the Department, and the facilities they willingly afford for ascertaining the facts connected with the purchase of gold, undoubtedly give a high value to the results derived from their returns.

Yield of gold from
quartz, &c.

There is a considerable increase in the yield of gold from vein-stuffs as compared with the yields for 1870. The figures are as follows:—

1870.										
				—	Produce.			Average per Ton.		
				Tons.	ozs.	dwts.	grs.	ozs.	dwts.	grs.
Quartz crushed	...	...	...	908,526 $\frac{17}{10}$	448,683	16	10	0	9	21·05
Quartz tailings, cement, mullock, &c.	...	...	...	163,972 $\frac{3}{4}$	22,133	17	19	0	2	16·79
Pyrites, blanketings, &c.	...	...	...	3,180 $\frac{1}{2}$	8,503	7	13	2	13	11·42

1871.										
				—	Produce.			Average per Ton.		
				Tons.	ozs.	dwts.	grs.	ozs.	dwts.	grs.
Quartz crushed	...	...	...	924,704 $\frac{7}{10}$	484,303	3	5	0	10	11·39
Quartz tailings, cement, mullock, &c.	...	...	...	167,196 $\frac{9}{10}$	21,914	10	0	0	2	14·91
Pyrites, blanketings, &c.	...	...	...	3,562 $\frac{9}{10}$	9,113	19	11	2	11	4

As these figures are often quoted as representing the *total yields from the quartz veins of the several districts*, it is necessary to repeat the statement made in the tables, namely, that they represent only the results which the Department has been able to get from returns forwarded by the mining managers and others. Managers of claims and mill-owners are not compelled by law to make returns ; and though the figures given from year to year are of great value to scientific men and practical miners, they cannot be regarded as illustrating the total produce or resources of any district, because they are incomplete. If the laws were altered, it would be very easy to make them complete.

Moreover, an attempt to measure the resources or the produce of any one mining district with another is at present impracticable, because of the diverse areas they embrace. The Mining District of Ballarat, for instance, has an area of 5141 square miles, and it is split into six divisions, and, like other districts, into subdivisions, for registration and statistical purposes ; Beechworth has an area of 13,050 square miles, with six divisions ; Sandhurst, 7000 square miles, with five divisions ; Maryborough, 25,680 square miles, with seven divisions ; Castlemaine, 6000 square miles, with six divisions ; Ararat, 14,550 square miles, with four divisions ; and Gippsland, 15,050 square miles, with seven divisions. Some of these areas include large and important goldfields, and many small and unimportant patches ; and from the largest areas the great goldfields are altogether excluded.

It is proper, therefore, in estimating the produce of any goldfield to regard the figures relating to the division, and not those relating to the district, in which it is situate ; and even with this limitation it is not easy to make comparisons which shall have any utility.

Total quartz
crushed.

From returns furnished it appears that up to the 31st December 1871 the yield of gold from 8,528,323 $\frac{1}{2}$ tons of quartz has been 4,738,823 ozs. 4 dwts., or an average of 11 dwts. 2·71 grs. per ton.

Tailings and
mullock.

From 1864 to 1871, inclusive, the returns made to the Department show that 1,501,024 $\frac{5}{10}$ tons of quartz tailings, mullock, &c., have given 280,397 ozs. 17 dwts. of gold, or an average of 3 dwts. 17·66 grs. per ton.

Pyrites and
blanketings.

The yield of gold from pyrites and blanketings during the years 1869–71 has been at the rate of 2 ozs. 14 dwts. 5·86 grs. per ton ; the total quantities operated on being 8142 $\frac{1}{2}$ tons.

The mean number of miners employed during the year 1871 was 58,111, less Number of miners by 2254 than those employed during the year 1870.

The mean numbers of alluvial miners and quartz miners on the goldfields for the years 1870 and 1871 respectively were as follows:—

		1870.		1871.
Alluvial Miners	...	43,879	...	41,963
Quartz Miners	...	16,486	...	16,148

And the numbers employed in each district on the 31st December of each year were as follows:—

	1870.		1871.	
	Alluvial.	Quartz.	Alluvial.	Quartz.
Ballarat	11,278	3,097	10,998	2,894
Beechworth	7,114	2,070	6,462	1,657
Sandhurst	4,101	4,893	3,373	5,455
Maryborough	10,279	1,917	10,202	1,844
Castlemaine	6,255	2,540	6,293	2,844
Ararat	2,055	653	2,293	868
Gippsland	2,214	781	2,121	975
	43,296	15,951	41,742	16,537

The number of Chinese miners employed on the goldfields in 1871 was 15,669 Chinese miners.—more by 590 than those employed in 1870.

There was a smaller number employed in the districts of Ballarat, Beechworth, Sandhurst, Ararat, and Gippsland; but a greater number in the Maryborough and Castlemaine districts. There was, however, no very great change in any district.

The Chinese miners continue to labor very assiduously in all parts of the colony, in workings abandoned by the Europeans; but very few of them have attempted quartz mining. Not more than 87 are put down as quartz miners.

Dividing the value of the total quantity of gold exported amongst the mean Average earnings of miners. number of miners employed in alluvial mining and quartz mining, it appears that in 1871 the average was per man for the year £93 6s. 0·62d.; and for 1870, £81 0s. 6·46d. This mode of estimating the productiveness of goldfields is now adopted where practicable in all parts of the American continent. It is obviously the only method which admits of a fair comparison of one year's yield with another, or the productiveness of one goldfield with another. If, for instance, 10,000 miners rushed a goldfield, and their average earnings for a year were £50 per man, and another was rushed by the same number where the average earnings, ascertained in this manner, were £100 per man, it would be inferred surely that the latter field was more productive than the former. The result simply indicates the measure of success which attended the operations; but whether due to greater labor or greater skill, or richer alluviums or reefs, cannot always be ascertained.

Dividing the value of the gold got from alluviums and quartz reefs severally, the figures for the past two years are as follows:—

Year.	Numbers.	Alluvial Miners.			Numbers.	Quartz Miners.		
		£	s.	d.		£	s.	d.
1870	43,879	61	8	5 ³ / ₄	16,486	133	3	11 ³ / ₄
1871	41,963	65	17	11 ¹ / ₂	16,148	164	10	4

It should be remembered, when considering these figures, that the miners are the holders of claims and leased lands of the estimated value of £12,275,046, and of machinery worth £2,060,885. They have earned these, and paid for them, by their labor.

Machinery
employed.

The number of steam-engines employed in alluvial mining in 1870 was 403, and the aggregate horse-power 9915; and in 1871 the number was 404, and the aggregate horse-power 9876.

The engines used in quartz mining were for the two years as follows :—

Year.	Number of Steam-engines.	Aggregate Horse-power.	Number of Stamp-heads.
1870	711	13,572	6,522*
1871	705	13,273	6,590*

* Inclusive of stamp-heads used in crushing quartz and other vein-stuff moved by other power than steam.

Further information respecting the number of machines employed on the goldfields is given at length in the tables.

Value of
machinery

The estimated value of the machinery on the goldfields for 1871 is £2,060,885—less by £68,011 than in 1870.

There is a slight decrease in the value in the mining districts of Ballarat, Beechworth, Maryborough, Castlemaine, and Gippsland, and a slight increase in the districts of Sandhurst and Ararat.

Quartz reefs and
area of auriferous
ground.

Table No. 18 shows that the number of distinct quartz reefs is 3130, and the extent of auriferous ground actually opened up 984 $\frac{3}{4}$ square miles.

Quartz mining at
great depths.

Auriferous quartz is now obtained at great depths in some of the mines. The New North Clunes Company's shaft at Clunes is 900 feet in depth; the Extended Cross Company's shaft at Pleasant Creek is 880 feet; the Albion Company's shaft at Steiglitz is 866 feet; and the shaft of the Collmann and Tacchi Company at Sandhurst is 748 feet.

The depth from the surface of the levels from which quartz is got in these mines ranges from 720 feet to 855 feet; and the yields from large parcels of quartz are good.

That rich quartz is now raised in Victoria from depths considerably below the level of the sea is a fact of great importance and of high scientific interest.

A crushing of 1525 tons of quartz was raised from levels 646 feet to 720 feet in depth, which gave an average of 16 dwts. 8.51 grs. of gold per ton. This quartz was got in the Collmann and Tacchi's Company's mine at Sandhurst.

The Cross Reef Company at Pleasant Creek got 6117 tons of quartz from 420 to 620 feet in depth, which gave an average yield of 2 ozs. 4 dwts. of gold per ton. The reef was from 3 feet to 14 feet in width.

From 525 feet in depth, the New Chum and Victoria Company at Sandhurst raised 155 tons of quartz, from a reef 4 feet to 20 feet in width, which yielded 6 ozs. 11 dwts. 14 grs. of gold per ton.

The mass of evidence accumulated by the Department during the past thirteen years proves beyond doubt that the reefs are as rich at great depths as at the surface.

Areas held a
claims and
under lease.

The following is a statement of the areas held under the bye-laws of the several Mining Boards, and under leases, during the years 1870 and 1871 :—

		1870.			1871.		
		A.	R.	P.	A.	R.	P.
Total area held as "claims"	...	67,341	2	0	81,584	2	39
Total area held under leases	...	26,651	2	5 $\frac{2}{3}$	25,383	2	30 $\frac{2}{3}$

Of the land held as "claims," about 10,000 acres were lying unworked, being protected from encroachment by registration or exemption certificates.

The following table shows the labor covenants and the number of men Labor employed on lands leased. employed on 1536 of the leases in force on the 31st December 1871 :—

Districts.	Number of Leases.	Area.			Number of Men, as per Covenant.	Number of Men actually employed, as per Returns.
		A.	R.	P.		
Ballarat	77	4,078	2	9	2,815	2,304
Beechworth	168	3,019	3	25	1,855	1,403
Sandhurst	689	5,562	1	24	3,778	4,550
Maryborough	240	4,971	0	39	2,792	1,575
Castlemaine	234	3,178	0	32	1,658	1,457
Ararat	64	682	1	37	524	624
Gippsland	64	1,005	1	17	543	497
Totals	1,536	22,498	0	23	13,965	12,410

We may assume therefore that about 13,000 men were employed on the 25,383 acres of leased lands, and about 45,000 men on the 81,584 acres held as “claims.”

The revenue derived from the goldfields in 1871 (exclusive of fees, fines, and forfeitures) was £35,606 10s. Tables 45 and 46 give information respecting the Revenue derived from the gold-fields. several items of revenue.

The Mining Registrars and Mining Surveyors estimate the value of the lands Value of claims. held for gold-mining purposes in 1871 at £12,275,046—more by £4,590,868 than in 1870. This great increase is explained by the development of quartz mining in the Sandhurst and Pleasant Creek divisions. The yield of gold from the reefs at Sandhurst and Pleasant Creek has of late been large and very steady.

Tables 36, 37, 38, and 39 give all the information which the Department has Water-right licenses. been able to collect respecting the works undertaken and completed by the miners for the supply of water for gold-mining purposes.

According to returns furnished on the 31st December 1871, the aggregate length of the water-races on the several goldfields was 2124 miles 34 chains, and the approximate cost of the same £269,822, or about £127 per mile.

Some extensive works have lately been projected under the tenure obtainable by the Water-right Regulations.

Table No. 49 shows approximately the quantity and cost of timber consumed Cost of timber. during the year 1871 for gold-mining purposes. The total amount paid for timber was £443,163 6s. 9d.

The number of mining companies registered in the several Courts of Mines Companies registered. during the year 1871 was 1206, the number of shares was 27,076,782, and the nominal capital £16,989,435.

Two companies were wound-up, with 6300 shares and a nominal capital of £8600, and several companies were in course of being wound-up.

The Goldfields Reward Board recommended that the sum of £70 should be New goldfields. paid to the discoverers of the Stockyard Creek goldfield, where leads and reefs of some value have been opened near the sea-coast. No other rewards were recommended, though numerous claims were investigated.

In the tables will be found information respecting the prices paid for labor ; the amounts received and disbursed under the leasing regulations ; and the quantities of powder received and taken out of the gunpowder magazines on the goldfields, during the year 1871. Wages paid for labor, &c.

During the first quarter, two gentlemen presented themselves for examination Examination of mining surveyors, &c. in surveying, &c., and both of them passed ; during the second quarter there were

four candidates, of whom one passed ; during the third quarter there were three, of whom two passed ; and at the last examination seven appeared, of whom three passed.

Business of the Mining Department.

The amount of business transacted in the Mining Department during the year 1871 may be estimated from the following figures:—

Letters received	...	...	...	...	...	...	21,689
Correspondence referred from other Departments (inwards)	...	...	...	...	...	...	9,476
References (outwards)	...	...	...	...	...	...	8,310
Accounts received	...	...	...	...	...	...	4,406
Accounts passed	...	...	...	...	...	...	3,607
Schedules passed (in triplicate)	...	...	...	...	...	...	493
Returns received	...	...	...	...	...	...	6,190
Letters outwards	...	...	...	...	...	...	26,423

Attendance of officers.

Mr. Richard Francis, the chief clerk, reports, in reference to the tables showing the attendance of officers during the year, that the total absence from duty was 31 $\frac{1}{3}$ $\frac{6}{8}$ weeks, and the overtime 128 $\frac{3}{8}$ $\frac{0}{8}$ weeks.

METALS AND MINERALS OTHER THAN GOLD.

Silver.—No silver ore was raised during the year.

Tin.—There were exported during the year 250 tons of tin ore, and 17,808 lbs. of tin.

Copper.—There were 8 cwt. of copper the produce of the colony exported. None is reported as having been raised in the colony during the year 1871.

Antimony.—There were raised 1575 tons 1 cwt. of antimony ores, and there were exported 1422 tons 13 cwt of antimony ores, 135 tons 6 cwt. of regulus, and 106 tons 10 cwt. of antimony.

Lead.—There were raised 45 tons of lead ore during the year.

Coal and Lignite.—995 tons of lignite were raised.

Clays.—There were 50 tons of kaolin raised during the year.

Flags and Slates.—There were raised 1713 tons and 1500 square yards of flagging.

Further information relative to metals and minerals other than gold is given in the tables and appendices.

The number of miners employed during the quarter ending 31st December 1871 in mining for metal and minerals other than gold was as follows :—

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Silver Miners	Tin Miners.	Copper Miners.	Antimony Miners.	Lead Miners.	Coal Miners.	Lignite Miners.	Slate and Flag Miners.	Grand Totals.
Ballarat ...	Buninyong Division ...	...	...	...	...	...	...	6	...	6
Beechworth	Beechworth Division ...	...	70	...	...	...	...	...	...	70
Sandhurst ...	{Heathcote Division and Waranga South Sub-division}	...	...	...	20	...	...	...	...	20
Maryborough	{St. Arnaud North Subdivision}	1	...	...	...	...	...	...	...	1
Castlemaine	{Castlemaine Division ... St. Andrew's Division ...}	...	...	...	...	...	...	...	52	52
Ararat ...	Pleasant Creek Division	...	...	...	...	...	...	...	2	2
Gippsland ...	Mitchell River Division... Stringer's Creek Division	...	...	...	...	4	...	...	...	4
		...	...	25	...	...	...	...	...	25
Totals ...		1	70	25	38	4	...	6	54	198

There were also four men employed for a portion of the year in raising kaolin and magnesite.

The following is an estimate of the Metals and Minerals raised in the colony from the first discovery of the goldfields to 31st December 1871 :—

<i>Gold</i> .—Quantity exported from the date of the first discovery to the 31st December 1871, 40,754,805 ozs. 9 dwts.,* at £4 per oz. ...				£163,019,221
<i>Silver</i> .—Ore raised, 11,348 tons. Produce of silver from ore treated, 18,353 ozs. 8 dwts., at 5s. 6d. per oz. ...				£5,047
<i>Tin</i> .—Ore exported, 2,601 tons 2 cwt ...				£192,936
" 92 tons 9 cwt., at £70 per ton ...				6,471
" 177 tons 10 cwt., at £52 10s. per ton ...				9,318
" 269 tons 1 cwt. ...				17,551
" 146 tons 15 cwt. ...				9,524
" 250 tons ...				17,500
Tin exported, 3 tons 12 cwt. 3 qrs. 12 lbs., at £140 per ton ...				510
" 7 tons 16 cwt. ...				729
" 14 cwt., at £140 per ton ...				98
" 15 cwt. ...				157
" 7 tons 19 cwt. ...				1,097
				255,891
<i>Copper</i> .—Ores raised, about 855 tons. Smelted, 31 tons 7 cwt., at £112 per ton ...				£3,511
Regulus, 70 tons 16 cwt. ...				1,969
Rough copper, 10½ tons ...				320
				5,800
<i>Antimony</i> .—Ore raised, 2,955 tons 15 cwt. 26 lbs. ...				£32,102
" 435 tons, at £6 per ton ...				2,610
" 272 tons, at £9 per ton ...				2,448
" 510 tons, at £7 per ton ...				3,570
" 199 tons, at £4 per ton ...				796
" 1,661 tons 3 cwt. ...				13,669
" 1,575 tons 1 cwt. ...				12,600
				67,795
<i>Lead</i> .—Ore raised, 100 tons, at £6 per ton ...				£600
" 45 tons ...				270
				870
<i>Coal</i> .—2,033 tons, at £1 10s. per ton ...				3,049
<i>Lignite</i> .—1,992 tons, at 17s. 6d. per ton ...				1,742
<i>Kaolin</i> .—1,757 tons, at £4 per ton ...				£7,028
50 tons, at £5 10s. per ton ...				275
				7,303
<i>Flagging</i> .—78,660 square yards ...				£22,370
1,500 square yards ...				525
3,918 tons ...				6,206
1,713 tons ...				2,569
				31,670
<i>Slates</i> .—11,000, at £8 per 1,000 ...				£88
160 tons, at £4 per ton ...				640
				728
<i>Magnesite</i> .—6½ tons, at £2 per ton ...				12
<i>Diamonds</i> .—About 95 carats, at an average of, say, £1 per carat ...				95
<i>Sapphires</i> .—Numbers cannot be estimated, say ...				160
Total ...				£163,399,383

The prices of the several ores, &c., have been obtained from persons best acquainted with the market value of them.

R. BROUGH SMYTH,
Secretary for Mines.

Office of Mines,
Melbourne, 22nd February 1872.

* From returns furnished by the Honorable the Commissioner of Trade and Customs, and inclusive of 1,267,241 ozs., which, according to the Registrar-General's tables, were produced in Victoria in 1852-5, but passed through the Customs of New South Wales, Tasmania, and South Australia, and not recorded in Victorian tables. The quantities used and manufactured in the colony cannot be estimated.

TABLES.

No. 1.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1871.

Quarter.	BALLARAT.			BEECHWORTH.			SANDHURST.			MARYBOROUGH.		
	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.
First Quarter, ending March 31st	11,159	3,193	14,352	6,699	2,021	8,720	3,945	4,879	8,824	9,786	1,800	11,586
Second Quarter, ending June 30th	11,222	2,978	14,200	6,636	1,980	8,616	3,827	4,958	8,785	9,027	1,845	10,872
Third Quarter, ending Sept. 30th	11,487	3,049	14,536	6,612	1,768	8,380	3,590	5,275	8,865	9,453	1,832	11,285
Fourth Quarter, ending Dec. 31st	10,998	2,894	13,892	6,462	1,657	8,119	3,373	5,455	8,828	10,202	1,844	12,046

Quarter.	CASTLEMAINE.			ARARAT.			GIPPSLAND.			GRAND TOTALS.		
	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.
First Quarter, ending March 31st	6,359	2,417	8,776	2,388	685	3,073	2,124	765	2,889	42,460	15,760	58,220
Second Quarter, ending June 30th	6,387	2,507	8,894	2,163	870	3,033	2,303	736	3,039	41,565	15,874	57,439
Third Quarter, ending Sept. 30th	6,533	2,773	9,306	2,244	870	3,114	2,165	855	3,020	42,081	16,422	58,506
Fourth Quarter, ending Dec. 31st	6,293	2,844	9,137	2,293	868	3,161	2,121	975	3,096	41,742	16,537	58,279

NOTE.—The mean number of miners employed during the year was 58,111; and the total quantity of gold exported 1,355,477 ozs. 3 dwts., which, at £4 per oz., gives £93 6s. 0·62d. per man per annum. The rate per man per annum for 1870 was £81 0s. 6·46d.; for 1869, £79 7s. 0·87d.; for 1868, £104 18s. 8·75d.; for 1867, £87 1s. 6·91d.; for 1866, £80 8s. 3·87d.; for 1865, £74 4s. 2·09d.; for 1864, £74 1s. 9·29d.; for 1863, £70 9s. 0·42d.; for 1862, £67 14s. 5·11d.; for 1861, £74 15s. 11d.; and for 1860, £79 9s. 3·07d.

No. 2.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS during the Quarter ending 31st December 1871.

Mining Districts.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District	8,459	2,539	2,894	...	11,353	2,539	13,892
Beechworth District	3,102	3,360	1,617	40	4,719	3,400	8,119
Sandhurst District	2,549	824	5,429	26	7,978	850	8,828
Maryborough District	6,026	4,176	1,823	21	7,849	4,197	12,046
Castlemaine District	3,370	2,923	2,844	...	6,214	2,923	9,137
Ararat District	1,353	940	868	...	2,221	940	3,161
Gippsland District	1,301	820	975	...	2,276	820	3,096
Totals	26,160	15,582	16,450	87	42,610	15,669	58,279

No. 3.

NUMBER of MINERS employed in the Mining District of BALLARAT during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Central Division	4,060	470	590	...	4,650	470	5,120
Southern Division	592	670	35	...	627	670	1,297
Buninyong Division	1,025	180	235	...	1,260	180	1,440
Smythesdale Division	1,570	300	30	...	1,600	300	1,900
Creswick Division	700	400	850	...	1,550	400	1,950
Gordon Subdivision	22	9	174	...	196	9	205
Steiglitz Subdivision	240	210	500	...	740	210	950
Blackwood Division and Blue Mountain South Subdivision	250	300	480	...	730	300	1,030
Totals	8,459	2,539	2,894	...	11,353	2,539	13,892

No. 4.

NUMBER of MINERS employed in the Mining District of BEECHWORTH during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Division	1,148	960	110	...	1,258	960	2,218
Yackandandah Division	267	344	115	...	382	344	726
Indigo Division	299	280	86	...	385	280	665
Buckland Division	159	1,219	432	4	591	1,223	1,814
Alexandra Subdivision	479	45	280	...	759	45	804
Dry Creek Subdivision	81	90	2	...	83	90	173
Benalla Subdivision ... ..	...	...	...	...	...	...	...
Gaffney's Creek Subdivision	70	8	80	32	150	40	190
Wood's Point Subdivision	184	20	200	...	384	20	404
Big River Subdivision	105	14	72	...	177	14	191
Mitta-mitta Division	230	240	12	4	242	244	486
Jamieson Subdivision	80	140	228	...	308	140	448
Totals	3,102	3,360	1,617	40	4,719	3,400	8,119

No. 5.

NUMBER of MINERS employed in the Mining District of SANDHURST during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Sandhurst Division	1,920	666	4,594	18	6,514	684	7,198
Kilmore Division	82	68	45	...	127	68	195
Heathcote Division and Waranga South Sub- division	347	40	490	8	837	48	885
Waranga North Subdivision	200	50	300	...	500	50	550
Totals	2,549	824	5,429	26	7,978	850	8,828

No. 6.

NUMBER of MINERS employed in the Mining District of MARYBOROUGH during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	2,045	400	837	...	2,882	400	3,282
Amherst Division	581	70	73	...	654	70	724
Avoca Subdivision	1,032	2,398	34	...	1,066	2,398	3,464
Dunolly and Tarnagulla Divisions	342	587	515	21	857	608	1,465
Korong Division	1,540	500	200	...	1,740	500	2,240
Redbank and St. Arnaud South Subdivisions	415	130	43	...	463	130	593
St. Arnaud North Subdivision	71	91	116	...	187	91	278
Totals	6,026	4,176	1,823	21	7,849	4,197	12,046

No. 7.

NUMBER of MINERS employed in the Mining District of CASTLEMAINE during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division	540	500	630	...	1,170	500	1,670
Fryer's Creek Division	1,120	1,090	390	...	1,510	1,090	2,600
Hepburn Division	935	671	819	...	1,754	671	2,425
Taradale and Kyneton Subdivision	275	265	360	...	635	265	900
Tarrangower Division	263	264	441	...	704	264	968
St. Andrew's Division	140	125	171	...	311	125	436
Blue Mountain North Subdivision	97	8	33	...	130	8	138
Totals	3,370	2,923	2,844	...	6,214	2,923	9,137

No. 8.

NUMBER of MINERS employed in the Mining District of ARARAT during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division	503	410	118	...	621	410	1,031
Pleasant Creek Division	300	170	750	...	1,050	170	1,220
Barkly Division	250	50	...	...	250	50	300
Raglan Division	300	310	...	...	300	310	610
Totals	1,353	940	868	...	2,221	940	3,161

No. 9.

NUMBER of MINERS employed in the Mining District of GIPPSLAND during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Omeo Subdivision	125	461	75	...	200	461	661
Mitchell River and Boggy Creek Subdivisions	191	120	69	...	260	120	380
Crooked River Division	209	112	80	...	239	112	401
Jericho Division	93	50	69	...	162	50	212
Donnelly's Creek Division	98	12	54	...	152	12	164
Stringer's Creek Division	46	...	522	...	568	...	568
Russell's Creek Subdivision	225	...	45	...	270	...	270
Bendoc Subdivision	21	65	39	...	60	65	125
Tarwin Subdivision	273	...	18	...	291	...	291
Traralgon Subdivision	20	...	4	...	24	...	24
Totals	1,301	820	975	...	2,276	820	3,096

No. 10.

SUMMARY.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the several MINING DISTRICTS during the Quarter ending 31st December 1871.

Mining Districts.		ALLUVIAL MINING.													
		Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.
		Total Number.	Aggregate Horse-power.												
Ballarat District ...	...	219	6,424	230	29	260	84	14	1,666	1	73	5	5	10	8
Beechworth District	...	47	772	25	...	56	34	49	13,675	11	165	163	1	...	5
Sandhurst District	...	31	508	...	...	242	14	68	74	...	12	...	18	314	1
Maryborough District	...	71	1,633	63	...	424	64	57	138	...	122	2	87	66	5
Castlemaine District	...	27	411	7	1	394	57	73	809	...	205	5	128	112	1
Ararat District ...	...	9	128	1	...	76	18	2	146	...	16	...	31	60	...
Gippsland District	...	...	...	...	...	13	3	3	1,922	...	104	102	...	...	2
Totals ...	...	404	9,876	326	30	1,465	274	266	18,430	12	697	277	270	562	22

Mining Districts.		QUARTZ MINING.										Approximate Value of all Mining Plant in the District.
		Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.		
		Total Number.	Aggregate Horse-power.									
Ballarat District ...	...	132	3,163	1	1,197	24	11	44	10	3	£ 516,825
Beechworth District	...	71	942	44	1,098	4	1	16	12	1	288,840	
Sandhurst District	...	168	2,891	2	1,549	3	...	222	275	1	454,330	
Maryborough District	...	106	1,966	...	734	...	...	108	91	1	272,372
Castlemaine District	...	143	2,540	5	1,109	4	3	144	188	...	266,628	
Ararat District ...	...	37	966	1	397	1	...	47	10	2	117,612
Gippsland District	...	48	805	16	506	1	...	6	3	1	144,278	
Totals ...	...	705	13,273	69	6,590	37	15	587	589	9	2,060,885

NOTE

In the Ballarat District the machinery used in alluvial mining shows an increase, as compared with the returns for 1870, of 3 steam-engines, 3 horse puddling machines, 25 whims, 22 sluices, toms, and sluice-boxes, 1 hydraulic hose, 3 water-wheels, and 2 boring machines; and a decrease of 60 horse-power in the steam-engines, 25 steam puddling machines, 9 buddles, 3 whips or pulleys, 3 quicksilver and compound cradles, and 8 stamp-heads (crushing cement). In quartz mining there is a decrease of 4 steam-engines and 151 horse-power, 44 stamp-heads, 4 whims, 2 whips or pulleys; and an increase of 5 buddles. The value of all mining plant in the district shows a decrease of £48,573.

In the Beechworth District the machinery used in alluvial mining shows an increase of 2 steam puddling machines; and a decrease of 3 steam-engines and 34 horse-power, 12 horse puddling machines, 2 whims, 1 whip or pulley, 499 sluices, toms, and sluice-boxes, 1 hydraulic hose, 29 water-wheels, and 2 boring machines. In quartz mining there is an increase of 14 stamp-heads and 2 whips or pulleys, and a decrease of 11 horse-power in the steam-engines. The value of all mining plant in the district has decreased £14,312.

In the Sandhurst District the machinery used in alluvial mining shows a decrease of 6 steam-engines and 34 horse-power, 63 horse puddling machines, 2 whims, 10 whips or pulleys, and 23 stamp-heads (crushing cement); and an increase of 6 quicksilver and compound cradles. In quartz mining there is an increase of 7 steam-engines and 149 horse-power, 105 stamp-heads, 8 whips or pulleys; and a decrease of 6 whims. The value of all mining plant in the district has increased £18,685.

In the Maryborough District the machinery used in alluvial mining shows an increase of 2 steam-engines and 73 horse-power, 14 horse puddling machines, 14 whims, 2 whips or pulleys, 27 sluices, toms, and sluice-boxes, 3 quicksilver and compound cradles, and 4 stamp-heads (crushing cement); and a decrease of 1 water-wheel. In quartz mining there is an increase of 15 whips or pulleys; and a decrease of 10 steam-engines and 342 horse-power, 23 stamp-heads, and 6 whims. The value of all mining plant in the district has decreased £21,933.

In the Castlemaine District the machinery used in alluvial mining has increased by 5 steam-engines and 18 horse-power, 1 steam puddling machine, 1 buddle, 27 whims, 3 whips or pulleys, 57 sluices, toms, and sluice-boxes; and decreased by 45 horse puddling machines, 6 water-wheels, 10 quicksilver and compound cradles, and 16 stamp-heads (crushing cement). In quartz mining there is a decrease of 3 steam-engines, 25 whims, 18 whips or pulleys, and 1 boring machine used in blasting; and an increase of 25 horse-power in the steam-engines, 11 stamp-heads, and 1 buddle. The value of all mining plant in the district has decreased £9,630.

In the Ararat District the machinery used in alluvial mining shows a decrease of 2 horse-power in the steam-engines, 3 steam puddling machines, and 4 whips or pulleys; and an increase of 1 horse puddling machine, 3 whims, 4 sluices, toms, and sluice-boxes, 5 quicksilver and compound cradles, and 2 stamp-heads (crushing cement). In quartz mining there is an increase of 2 steam-engines and 22 horse-power, 36 stamp-heads, 2 whims, and 1 whip or pulley; and a decrease of 1 buddle. The value of all mining plant in the district has increased £8,794.

In the Gippsland District the machinery used in alluvial mining has increased by 10 horse puddling machines, 1 whim, 3 whips or pulleys, and 2 boring machines; and decreased by 352 sluices, toms, and sluice-boxes, and 13 water-wheels. In quartz mining there is an increase of 2 steam-engines and 9 horse-power, and 2 whips or pulleys; and a decrease of 31 stamp-heads and 1 whim. The value of all mining plant in the district has decreased £1,042.

Comparing the totals of machinery employed on the goldfields in 1871 with the totals for 1870, the machinery used in alluvial mining shows an increase of 1 steam-engine, 16 whims, 1 quicksilver and compound cradle, and 2 boring machines; and a decrease of 39 horse-power in the steam-engines, 25 steam puddling machines, 8 buddles, 102 horse puddling machines, 10 whips or pulleys, 731 sluices, toms, and sluice-boxes, 46 water-wheels, and 46 stamp-heads (crushing cement). In quartz mining there is a decrease of 6 steam-engines and 299 horse-power, 40 whims, and 1 boring machine used in blasting; and an increase of 68 stamp-heads, 5 buddles and 8 whips or pulleys. There is a decrease in the total value of all mining plant on the goldfields, as compared with 1870, of £68,011.

No. 13.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of SANDHURST during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.								Approximate Value of all Mining Plant in the Division or Subdivision.	
	Steam-engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whlms.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other veln-stuff).	Buddles.	Whlms.	Whips or Pulleys.	Boring Machines used in Blasting.		
	Total Number.	Aggregate Horse- power.									Total Number.	Aggregate Horse- power.								
Sandhurst Division	168	10	58	...	12	18	314	1	188	2,440	...	1,294	3	209	244	1	411,500
Kilmore Division	5	48	2	37	...	...	...	...	3,150
Heathcote Division and Waranga South Subdivision	62	4	10	74	...	...	...	...	...	18	264	...	146	...	10	21	...	21,720
Waranga North Subdivision	12	...	...	...	...	...	...	...	...	7	139	...	72	...	3	10	...	17,960
Totals	242	14	68	74	...	12	18	314	1	168	2,891	2	1,549	3	222	275	1	454,330

No. 14.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of MARYBOROUGH during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.					Approximate Value of all Mining Plant in the Division or Subdivision.			
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whlms.	Whips or Pulleys.	Sluice-boxes, Toms, and	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.							
	Total Number.	Aggregate Horse- power.																	
Maryborough Division	36	917	31	152	24	12	3	2	2	36	36	4	22	492	171	27	16	...	105,737
Amherst Division	19	370	22	90	14	12	80	100	...	24	...	...	8	100	50	8	5	...	83,650
Avoca Subdivision	11	275	8	77	8	19	42	10	...	1	24	1	2	32	10	2	2	...	15,925
Dunolly and Tarnagulla Divisions	2	25	...	72	15	9	...	...	...	23	...	...	41	681	265	30	17	...	64,000
Korong Division	2	30	...	13	1	4	...	2	...	...	6	...	15	330	120	25	34	...	20,000
Redbank and St. Arnaud South Subdivisions	1	16	2	12	2	1	7	...	...	...	...	...	4	75	28	2	1	...	7,711
St. Arnaud North Subdivision	...	...	...	8	...	...	6	8	...	3	...	...	14	256	90	14	16	...	25,349
Totals	71	1,633	63	424	64	57	138	122	2	87	66	5	106	1,966	734	108	91	1	272,372

No. 15.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of CASTLEMAINE during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.								Approximate Value of all Mining Plant in the Division or Subdivision.		
	Steam-engines employed in Winding, Pumping, &c.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Stucc-boxes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.		Whips or Pulleys.	
												Total Number.	Aggregate Horse- power.								
Cast'neine Division	4	50	4	135	6	15	100	15	90	12	..	..	36	471	..	244	2	..	30	38	58,670
Fryer's Creek Division	7	109	..	120	6	65	300	65	8	52	..	..	17	303	..	124	..	..	6	11	60,500
Hepburn Division	6	105	3	55	8	55	250	55	..	32	1	..	27	434	3	196	1	3	51	60	31,555
Taratule and Kyneton Subdivision	5	101	..	28	31	6	42	6	..	..	..	..	15	330	..	168	..	..	..	..	26,689
Tarrangower Division	2	20	..	48	..	17	64	64	35	16	..	..	34	817	..	298	1	..	57	79	77,600
St. Andrew's Division	2	16	..	8	6	..	100	..	..	..	..	..	12	160	2	71	..	..	..	..	9,514
Blue Mountain North Subdivision	1	10	..	..	..	..	..	..	..	..	..	..	2	25	..	8	..	..	..	..	1,500
Totals	27	411	7	394	57	73	809	205	128	112	1	143	2,540	5	1,109	4	3	144	188	266,628	

No. 16.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of ARARAT during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions.	ALLUVIAL MINING.								QUARTZ MINING.								Approximate Value of all Mining Plant in the Division.		
	Steam-engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Stucc-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other vein-stuff).	Buddles.	Whims.	Whips or Pulleys.		Boring Machines used in Blasting.	
	Total Number.	Aggregate Horse- power.								Total Number.	Aggregate Horse- power.								
Ararat Division	1	12	1	19	6	..	6	..	..	169	1	69	..	1	..	1	..	21,958
Pleasant Creek Division	4	56	..	2	..	..	25	36	..	797	..	328	1	46	10	..	..	86,914
Barkly Division	2	36	..	16	2	..	..	24	..	..	..	..	..	..	..	..	..	3,440
Raglan Division	2	24	..	39	10	2	..	..	..	..	..	..	..	..	..	..	..	5,300
Totals	9	128	1	76	18	2	146	16	31	60	37	966	1	397	1	47	10	2	117,612

No. 17.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of GIPPSLAND during the Quarter ending 31st December 1871.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.						QUARTZ MINING.										Approximate Value of all Mining Plant in the Division or Subdivision.
	Horse Pudding Machines.	Whims.	Whips or Pulleys.	Sluices, Tons, and Sluice-boxes.	Pumps.	Water-wheels.	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing quartz or other vein-stuff).	Buddles.	Whims.	Whips or pulleys.	Boring Machines used in Blasting.		
								Number.	Aggregate Horse-power.								
Omeo Subdivision ...	...	...	...	800	20	20	...	1	17	...	15	...	...	...	...	£ 4,600
Mitchell River and Boggy Creek Subdivisions	...	...	...	100	...	...	...	2	22	...	17	...	...	...	...	2,000
Crooked River Division	...	...	...	550	35	50	...	11	149	7	132	...	...	...	1	33,700
Jericho Division	...	...	...	150	13	13	...	5	65	3	80	...	...	...	...	18,672
Donnelly's Creek Division	...	...	...	30	...	...	...	4	58	...	51	...	...	...	...	9,775
Stringer's Creek Division	...	...	...	...	...	...	...	17	412	1	140	1	1	...	...	66,442
Russell's Creek Subdivision	6	...	...	200	25	8	...	4	36	2	36	...	2	...	...	3,538
Bendoc Subdivision	...	...	...	79	11	11	...	3	38	3	31	...	2	2	...	4,651
Tarwin Subdivision	7	3	3	10	...	...	1	1	8	...	4	...	1	...	...	840
Traralgon Subdivision	...	...	...	3	...	...	1	...	...	...	...	...	...	1	...	60
Totals ...	13	3	3	1,922	104	102	2	43	805	16	506	1	6	3	1	144,278	

No. 18.

SUMMARY.

NUMBER of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon in the several Mining Districts.

Mining Districts.							Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District ...	...	...	...	...	...	...	189	134½
Beechworth District	...	...	...	...	...	...	779	248½
Sandhurst District	...	...	...	...	...	...	710	140½
Maryborough District	...	...	...	...	...	...	524	77½
Castlemaine District	...	...	...	...	...	...	390	166½
Ararat District ...	...	...	...	...	...	...	73	82½
Gippsland District	...	...	...	...	...	...	465	135
Totals ...	...	...	...	...	...	...	3,130	984½

NOTE.—The number of "distinct" quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored, it is found, too, that what were supposed to be separate reefs are not really distinct. The extent of auriferous ground is here put down from estimates made by the Mining Surveyors and Registrars, not from actual surveys; and in a few instances the estimates of the present Surveyors and Registrars differ from those made by their predecessors. The figures vary from year to year; as the shallow alluviums of the older goldfields are abandoned by the miners, they are taken up and occupied, under the provisions of the Amending Land Act, by agriculturists and gardeners, and ground which one year was included in the estimated area of gold-workings is excluded in another.

No. 19.

TABLE showing the Number of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon, in the several DIVISIONS and SUBDIVISIONS of each Mining District.

Mining Districts.		Mining Surveyors and Registrars' Divisions and Subdivisions.				Number of Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT ...	{	Central Division	...	...	...	24	37	
		Southern Division	...	...	...	14	6	
		Buninyong Division	...	...	...	13	14	
		Smythesdale Division	...	...	...	11	15	
		Creswick Division	...	...	...	15	12	
		Gordon Subdivision	...	...	...	19	3½	
		Steiglitz Subdivision	...	...	...	67	43	
		Blackwood Division	...	...	...	26	4	
		South Subdivision	...	...	...
Totals		...	...	...	189	134½		

No. 19.—TABLE showing Number of distinct Quartz Reefs actually proved to be Auriferous, &c.—*continued*.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BEECHWORTH	Beechworth Division	92	47	
	Yackandandah Division	70	12	
	Indigo Division	25	2½	
	Buckland Division	381	60	
	Alexandra Subdivision	57	28	
	Dry Creek Subdivision ... ..	...	3	
	Benalla Subdivision	3	10	
	Gaffney's Creek Subdivision	18	2½	
	Wood's Point Subdivision	93	18	
	Big River Subdivision	13	33	
SANDHURST	Mitta-mitta Division	5	3	
	Jamieson Subdivision	22	8	
	Totals	779	248½	
	Sandhurst Division	318	22	
	Kilmore Division	125	27	
	Heathcote Division and Waranga South Sub-division	166	81	
	Waranga North Subdivision	101	10½	
	Totals	710	140½	
	Maryborough Division	142	5	
	Amherst Division	45	6	
MARYBOROUGH	Avoca Subdivision	16	16½	
	Dunolly and Tarnagulla Divisions	180	16	
	Korong Division	50	16	
	Redbank and St. Arnaud South Subdivisions	26	11½	
	St. Arnaud North Subdivision	65	7	
	Totals	524	77¾	
	Castlemaine Division	104	9½	
	Fryer's Creek Division	32	28¾	
	Hepburn Division	88	82	
	Taradale and Kyneton Subdivision	19	22	
CASTLEMAINE	Tarrangower Division	74	4½	
	St. Andrew's Division	69	15½	
	Blue Mountain North Subdivision	4	4½	
	Totals	390	166¼	
	Ararat Division	23	34	
	Pleasant Creek Division	36	26	
	Barkly Division	9	16	
	Raglan Division	5	6½	
	Totals	73	82¼	
	Omeo Subdivision	19	9	
GIPPSLAND ...	Mitchell River and Boggy Creek Subdivisions	16	8	
	Crooked River Division	343	49½	
	Jericho Division	30	25	
	Donnelly's Creek Division	16	6	
	Stringer's Creek Division	14	7½	
	Russell's Creek Subdivision	14	4	
	Bendoc Subdivision	11	23	
	Tarwin Subdivision	1	2	
	Traralgon Subdivision	1	1	
	Totals	465	135	

No. 20.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1871 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Crushed.	Total Produce.	Average Yield per Ton
	tons.	ozs. dwts. grs.	ozs. dwts. grs.
Ballarat District	311,237½	89,947 17 9	0 5 18 72
Beechworth District	105,251½	51,700 1 14	0 9 19 77
Sandhurst District	186,790½	116,200 19 22	0 12 10 60
Maryborough District	48,941 7/10	23,734 2 0	0 9 16 77
Castlemaine District	130,364	61,387 12 21	0 9 10 02
Ararat District	105,188¾	82,194 19 16	0 15 15 07
Gippsland District	36,930 9/10	59,137 9 19	1 12 0 62
Totals	924,704 7/10	484,303 3 5	0 10 11 39

NOTE.—The above table does not show the total quantity of quartz crushed in the several localities, but only the yield of certain "crushings" respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the Statistics, information has been obtained concerning 8,528,323 8 tons which have been crushed, which yielded an average of 11 dwts. 2 71 grs. per ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ CRUSHED in 1871 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT ...	Central Division ...	91,866½	17,454 15 12	0 3 19'20	
	Southern Division ...	6,607	922 12 6	0 2 19'02	
	Buninyong Division ...	27,977	4,646 3 1	0 3 7'71	
	Smythesdale Division ...	...	...	...
	Creswick Division ...	132,942	47,890 14 18	0 7 4'91	
	Gordon Subdivision ...	20,044	8,540 16 2	0 8 12'52	
	Steiglitz Subdivision ...	6,023	4,896 11 0	0 16 6'22	
	Blackwood Division and Blue Mountain South Subdivision ...	25,778	5,596 4 18	0 4 8'20	
	Totals ...	311,237½	89,947 17 9	0 5 18'72	
BEECHWORTH ...	Beechworth Division ...	2,368	1,708 3 0	0 14 10'24	
	Yackandandah Division ...	8,632	4,273 18 0	0 9 21'66	
	Indigo Division ...	4,621	2,899 9 8	0 12 13'19	
	Buckland Division ...	29,974	17,173 12 18	0 11 11'16	
	Alexandra Subdivision ...	5,411½	5,106 7 10	0 18 18'43	
	Dry Creek Subdivision ...	58	13 4 12	0 4 13'45	
	Benalla Subdivision ...	...	...	...
	Gaffney's Creek Subdivision ...	21,577	3,097 13 5	0 2 20'91	
	Wood's Point Subdivision ...	24,464	9,951 11 15	0 8 3'25	
	Big River Subdivision ...	5,947	5,108 19 0	0 17 4'35	
	Mitta-mitta Division ...	...	...	...
	Jamieson Subdivision ...	2,169	2,367 2 18	1 1 19'84	
	Totals ...	105,251½	51,700 1 14	0 9 19'77	
SANDHURST ...	Sandhurst Division ...	168,779	104,921 1 4	0 12 10'39	
	Kilmore Division ...	666½	538 0 0	0 16 3'45	
	Heathcote Division and Waranga South Subdivision ...	8,254	6,009 16 21	0 14 13'49	
	Waranga North Subdivision ...	9,091	4,732 1 21	0 10 9'85	
	Totals ...	186,790½	116,200 19 22	0 12 10'60	
MARYBOROUGH ...	Maryborough Division ...	14,836	7,841 11 11	0 10 13'70	
	Amherst Division ...	6,150	1,962 12 14	0 6 19'17	
	Avoca Subdivision ...	1,385½	420 11 18	0 6 1'70	
	Dunolly and Tarnagulla Divisions ...	11,189 ³⁰	5,008 5 16	0 8 22'84	
	Korong Division ...	5,939	2,690 3 22	0 8 25'42	
	Redbank and St. Arnaud South Subdivisions ...	3,153	1,698 10 3	0 10 18'57	
	St. Arnaud North Subdivision ...	6,289 ²⁵	4,112 6 12	0 13 1'86	
	Totals ...	48,941 ⁷⁰	23,734 2 0	0 9 16'77	
CASTLEMAINE ...	Castlemaine Division ...	19,311	7,861 16 22	0 8 3'41	
	Fryer's Creek Division ...	11,184	6,349 4 18	0 11 8'49	
	Hepburn Division ...	43,311	17,543 3 6	0 8 2'47	
	Taradale and Kyneton Subdivision ...	34,360	15,685 4 0	0 9 3'11	
	Tarrangower Division ...	19,003	10,119 9 20	0 10 15'60	
	St. Andrew's Division ...	2,647	3,536 11 3	1 6 17'30	
	Blue Mountain North Subdivision ...	548	287 3 0	0 10 11'51	
	Totals ...	130,364	61,387 12 21	0 9 10'02	
ARARAT ...	Ararat Division ...	5,257	2,018 18 12	0 7 16'34	
	Pleasant Creek Division ...	99,931½	80,176 1 4	0 16 1'10	
	Barkly Division ...	...	...	...
	Raglan Division ...	...	...	...
	Totals ...	105,188½	82,194 19 16	0 15 15'07	
GIPPSLAND ...	Omeo Subdivision ...	1,010	1,138 1 1	1 2 12'85	
	Mitchell River and Boggy Creek Subdivisions ...	624	458 7 0	0 14 16'57	
	Crooked River Division ...	1,119	1,165 1 10	1 0 19'76	
	Jericho Division ...	2,710½	2,444 2 6	0 18 0'82	
	Donnelly's Creek Division ...	52 ²⁰	268 13 0	5 1 13'65	
	Stringer's Creek Division ...	30,907½	53,160 19 3	1 14 9'60	
	Russell's Creek Subdivision ...	230	299 0 0	1 6 0	
	Bendoc Subdivision ...	257	188 5 23	0 14 15'68	
	Tarwin Subdivision ...	20	15 0 0	0 15 0	
	Taralgon Subdivision ...	...	...	...
	Totals ...	36,930 ²⁰	59,137 9 19	1 12 0'62	

No. 22.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1871 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District	9,702	933 14 18	0 1 22·20	
Beechworth District	565	513 12 15	0 18 4·35	
Sandhurst District	75,829	12,451 8 22	0 3 6·81	
Maryborough District	15,748	1,914 0 4	0 2 10·33	
Castlemaine District	43,009	3,855 19 16	0 1 19·03	
Ararat District	21,854 ⁹ ₁₀	2,182 12 21	0 1 23·93	
Gippsland District	489	63 1 0	0 2 13·88	
Totals	167,196 ⁹ ₁₀	21,914 10 0	0 2 14·91	

NOTE.—From 1864 to 1871, inclusive, 1,501,024 tons and 5 cwt. of quartz tailings, &c., were crushed, and yielded 280,397 ozs. 17 dwts. 12 grs. of gold, being an average of 3 dwts. 17·66 grs. per ton.

No. 23.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, CEMENT, MULLOCK, &c., Crushed in 1871 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	227	34 9 0	0 3 0·84	
	Southern Division	870	130 12 0	0 3 0·06	
	Buninyong Division ... ..	...	...	...
	Smythesdale Division	6,500	234 2 12	0 0 17·28	
	Creswick Division	1,849	514 2 6	0 5 13·46	
	Gordon Subdivision	256	20 9 0	0 1 14·34	
	Steiglitz Subdivision ... ..	...	...	...
	Blackwood Division and Blue Mountain South Subdivision ... ..	...	...	...
	Totals	9,702	933 14 18	0 1 22·20	
BEECHWORTH	Beechworth Division	82	19 0 0	0 4 15·21	
	Yackandandah Division	38	1 0 0	0 0 12·63	
	Indigo Division ... ..	...	...	...
	Buckland Division	47	378 5 0	8 0 22·97	
	Alexandra Subdivision	348	54 7 15	0 3 3	
	Dry Creek Subdivision ... ..	...	...	...
	Benalla Subdivision ... ..	...	...	...
	Gaffney's Creek Subdivision ... ..	...	...	...
	Wood's Point Subdivision	50	61 0 0	1 4 9·60	
	Big River Subdivision ... ..	...	...	...
SANDHURST	Mitta-mitta Division ... ..	...	...	...
	Jamieson Subdivision ... ..	...	...	...
	Totals	565	513 12 15	0 18 4·35	
	Sandhurst Division	65,063	11,517 8 4	0 3 12·96	
	Kilmore Division ... ..	...	...	...
SANDHURST	Heathcote Division and Waranga South Subdivision	6,877	679 5 0	0 1 23·41	
	Waranga North Subdivision	3,889	254 15 18	0 1 7·44	
	Totals	75,829	12,451 8 22	0 3 6·81	

No. 23.—TABLE showing the Average Yield of Gold from certain parcels of Quartz Tailings, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
MARYBOROUGH ...	Maryborough Division ...	tons. 3,458	ozs. dwts. grs. 398 15 12	ozs. dwts. grs. 0 2 7'35	
	Amherst Division ...	1,814	228 14 18	0 2 12'52	
	Avoca Subdivision ...	4,155	457 19 1	0 2 4'90	
	Dunolly and Tarnagulla Divisions ...	1,113	209 6 7	0 3 18'27	
	Korong Division ...	1,235	245 10 12	0 3 23'42	
	Redbank and St. Arnaud South Subdivisions ...	1,650	181 12 3	0 2 4'83	
	St. Arnaud North Subdivision ...	2,323	192 1 23	0 1 15'69	
	Totals ...	15,748	1,914 0 4	0 2 10'33	
CASTLEMAINE ...	Castlemaine Division ...	619	58 5 12	0 1 21'19	
	Fryer's Creek Division ...	5,576	1,096 19 0	0 3 22'42	
	Hepburn Division ...	17,557	1,184 11 18	0 1 8'38	
	Taradale and Kyneton Subdivision ...	...	...	...
	Tarrangower Division ...	17,287	1,422 7 13	0 1 15'49	
	St. Andrew's Division ...	1,970	93 15 21	0 0 22'85	
	Blue Mountain North Subdivision... ..	...	...	...
	Totals ...	43,009	3,855 19 16	0 1 19'03	
ARARAT ...	Ararat Division ...	3,411	342 17 0	0 2 0'24	
	Pleasant Creek Division ...	16,943 ⁹ ₇₀	1,764 15 21	0 2 1'99	
	Barkly Division ...	1,500	75 0 0	0 1 0	
	Raglan Division ...	...	...	...
	Totals ...	21,854 ⁹ ₇₀	2,182 12 21	0 1 23'93	
GIPPSLAND ...	Omeo Subdivision ...	...	...	...
	Mitchell River and Boggy Creek Subdivisions ...	...	...	...
	Crooked River Division ...	...	...	...
	Jericho Division ...	...	...	...
	Donnelly's Creek Division ...	...	...	...
	Stringer's Creek Division ...	489	63 1 0	0 2 13'88	
	Russell's Creek Subdivision ...	...	...	...
	Bendoc Subdivision ...	...	...	...
	Tarwin Subdivision ...	...	...	...
	Traralgon Subdivision ...	...	...	...
	Totals ...	489	63 1 0	0 2 13'88	

No. 24.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1871 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District ...	1,530 ¹ ₂	4,397 1 10	2 17 11'02	
Beechworth District ...	254 ¹³ ₂₀	665 11 0	2 12 6'52	
Sandhurst District ...	1,460 ¹ ₅	3,444 15 0	2 7 3'88	
Maryborough District ...	136	317 10 10	2 6 16'66	
Castlemaine District ...	87	84 11 15	0 19 10'65	
Ararat District ...	...	...	...
Gippsland District ...	93 ¹ ₂	204 10 0	2 3 17'84	
Totals ...	3,562 ⁹ ₂₀	9,113 19 11	2 11 4	

NOTE.—From 1869 to 1871, inclusive, 8,142 tons 16 ewt. of pyrites, &c., were operated on, and yielded 22,085 ozs. 0 dwts. 17 grs. of gold, being an average of 2 ozs. 14 dwts. 5'86 grs. per ton.

No. 25.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1871 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	192½	258 6 12	1 6 2016	
	Southern Division ... ..	...	...	...
	Buninyong Division ... ..	...	...	...
	Smythesdale Division ... ..	...	...	...
	Creswick Division	1,338	4,138 14 22	3 1 2075	
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision ... ..	...	...	...
	Blackwood Division and Blue Mountain South Subdivision ... ..	...	...	...
	Totals	1,530½	4,397 1 10	2 17 11'02	
BEECHWORTH	Beechworth Division ... ..	...	...	...
	Yackandandah Division	1	10 0 0	10 0 0	
	Indigo Division ... ..	...	...	...
	Buckland Division	180	379 17 0	2 2 493	
	Alexandra Subdivision ... ..	...	...	...
	Dry Creek Subdivision ... ..	...	...	...
	Benalla Subdivision ... ..	...	...	...
	Gaffney's Creek Subdivision ... ..	...	...	...
	Wood's Point Subdivision	73½	275 14 0	3 14 2082	
	Big River Subdivision ... ..	...	...	...
	Totals	254½	665 11 0	2 12 6'52	
SANDHURST	Sandhurst Division	1,460½	3,444 15 0	2 7 3'88	
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision ... ..	...	...	...
	Waranga North Subdivision ... ..	...	...	...
	Totals	1,460½	3,444 15 0	2 7 3'88	
MARYBOROUGH	Maryborough Division	23	85 18 12	3 14 17'21	
	Amherst Division ... ..	...	...	...
	Avoca Subdivision ... ..	...	...	...
	Dunolly and Tarnagulla Divisions	23	45 15 22	1 19 19'73	
	Korong Division ... ..	...	...	...
	Redbank and St. Arnaud South Subdivisions	90	185 16 0	2 1 6'93	
	Totals	136	317 10 10	2 6 16'66	
CASTLEMAINE	Castlemaine Division ... ..	...	...	...
	Fryer's Creek Division ... ..	...	...	...
	Hepburn Division	19	31 11 15	1 13 5'84	
	Taradale and Kyneton Subdivision ... ..	...	...	...
	Tarrangower Division	68	53 0 0	0 15 14'11	
	Totals	87	84 11 15	0 19 10'65	
ARARAT	Ararat Division ... ..	...	...	...
	Pleasant Creek Division ... ..	...	...	...
	Barkly Division ... ..	...	...	...
	Raglan Division ... ..	...	...	...
	Totals ... ..	...	...	...
GIPPSLAND	Omeo Subdivision ... ..	...	...	...
	Mitchell River and Boggy Creek Subdivisions ... ..	...	...	...
	Crooked River Division ... ..	...	...	...
	Jericho Division ... ..	...	...	...
	Donnelly's Creek Division ... ..	...	...	...
	Stringer's Creek	93½	204 10 0	2 3 17'84	
	Russell's Creek Subdivision ... ..	...	...	...
	Bendoc Subdivision ... ..	...	...	...
	Tarwin Subdivision ... ..	...	...	...
	Totals	93½	204 10 0	2 3 17'84	

No. 26.
SUMMARY.

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ending 31st December 1871.

Mining Districts.	From	To
	£ s. d.	£ s. d.
Ballarat District	0 3 0	0 15 0
Beechworth District	0 5 0	1 5 0
Sandhurst District... ..	0 5 6	1 0 0
Maryborough District	0 5 0	0 10 0
Castlemaine District	0 2 6	0 10 6
Ararat District	0 5 6	0 10 0
Gippsland District... ..	0 7 6	1 5 0
Lowest and Highest Prices	0 2 6	1 5 0

No. 27.
SUMMARY.

PRICE of GOLD per Ounce in the several MINING DISTRICTS during the Quarter ending 31st December 1871.

Mining Districts.	From	To
	£ s. d.	£ s. d.
Ballarat District	3 16 6	4 2 6
Beechworth District	3 0 0	4 1 6
Sandhurst District... ..	3 15 0	4 1 0
Maryborough District	3 6 0	4 1 6
Castlemaine District	3 16 0	4 2 6
Ararat District	3 11 6	3 19 6
Gippsland District... ..	3 0 0	3 18 0
Lowest and Highest Prices	3 0 0	4 2 6

No. 28.

QUANTITY of GOLD EXPORTED during the Year 1871, as returned by the Customs Department.

1,355,477 ozs. 3 dwts.

NOTE.—In addition to the above, 291,745 ozs. 2 dwts. New Zealand gold, and 166 ozs. 8 dwts. Tasmanian gold, have been shipped from this colony during the year.

No. 29.

RETURN showing approximately the GOLD obtained from QUARTZ VEINS and ALLUVIAL WORKINGS during the Year 1871.

	ozs.	dwts.
From Quartz Veins	664,154	13
From Alluvial Workings	691,322	10
Total Gold Exported	1,355,477	3

NOTE.—The above results are but rough approximations. The Mining Surveyors and Registrars can furnish only estimates based on information afforded by the hanks and gold-buyers, and on their own knowledge of the character of the workings in their districts. The check on the returns—and not a sufficient one—is that afforded by the returns of quartz and quartz tailings crushed, which, however, cannot and do not comprise information respecting all the vein-stuff put through the mills.

No. 30.

RETURN of the Number of GOLD-MINING LEASES in force on the 31st Decem ber 1871, and the Extent of GROUND LEASED.

Mining Districts.	Number of Leases.	Extent.		
		A.	R.	P.
Ballarat District	80	4,145	3	21
Beechworth District	166	3,010	1	1
Sandhurst District... ..	831	7,061	0	10½
Maryborough District	266	5,572	3	35
Castlemaine District	254	3,098	1	7
Ararat District	67	734	0	19
Gippsland District	112	1,761	0	17
Totals	1,776	25,383	2	30½

NOTE.—The total number of Gold-Mining Leases granted since the commencement is 6,108, containing 129,379 a. 3 r. 11½ p. The above table shows those only which were actually in force on the 31st December 1871.

No. 31.

RETURN of the Number of GOLD-MINING LEASES Issued in the Year 1871, and the Extent of GROUND LEASED.

Mining Districts.	Number of Leases.	Extent.		
		A.	R.	P.
Ballarat District	22	974	3	21
Beechworth District	41	999	3	3
Sandhurst District	379	3,661	3	13½
Maryborough District	98	2,484	1	37
Castlemaine District	149	1,974	0	26
Ararat District	21	225	2	22
Gippsland District	63	1,077	1	6
Totals	773	11,398	0	8½

No. 32.

SUMMARY.

AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same protected by Registration or by Exemption Certificates, in the several MINING DISTRICTS, on the 31st December 1871.

Mining Districts.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked being protected by Certificates.		
	A.	R.	P.	A.	R.	P.
Ballarat District	45,730	0	14	5,931	0	35
Beechworth District	14,111	2	10	1,185	2	37
Sandhurst District... ..	3,498	2	21	274	3	36
Maryborough District	7,200	1	32	1,229	3	32
Castlemaine District	6,389	0	32	821	1	6
Ararat District	961	1	0	160	0	0
Gippsland District	3,693	2	10	180	1	4
Totals	81,584	2	39	9,783	1	30

NOTE.—The areas given in the second column are included in the first.

No. 33.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and the proportion of the same not being worked being protected by Registration or by Exemption Certificates, in the several DIVISIONS and SUBDIVISIONS, on the 31st December 1871.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of ground not being worked being protected by Certificates.		
		A.	B.	P.	A.	B.	P.
BALLARAT ...	Central Division ...	26,021	1	1	3,150	3	8
	Southern Division ...	2,119	0	0	114	3	0
	Buninyong Division ...	4,031	0	18	345	0	0
	Smythesdale Division ...	7,023	1	2	875	3	30
	Creswick Division ...	4,438	0	0	1,166	0	0
	Gordon Subdivision ...	332	1	26	183	2	26
	Steiglitz Subdivision ...	1,020	0	8	45	1	27
	Blackwood Division and Blue Mountain South Sub-division ...	694	3	39	49	2	24
	Totals ...	45,730	0	14	5,931	0	35
BEECHWORTH ...	Beechworth Division ...	5,270	0	0	96	0	0
	Yackandandah Division ...	914	2	10	25	0	37
	Indigo Division ...	2,415	0	0	670	0	0
	Buckland Division ...	1,009	0	0	114	0	0
	Alexandra Subdivision ...	3,185	0	0	220	0	0
	Dry Creek Subdivision ...	180	0	0	...	...	...
	Benalla Subdivision ...	...	...	...	...	...	...
	Gaffney's Creek Subdivision ...	80	0	0	2	0	0
	Wood's Point Subdivision ...	170	0	0	6	2	0
	Big River Subdivision ...	112	0	0	...	...	...
	Mitta-mitta Division ...	400	0	0	40	0	0
	Jamieson Subdivision ...	376	0	0	12	0	0
	Totals ...	14,111	2	10	1,185	2	37
SANDHURST ...	Sandhurst Division ...	2,900	0	0	204	0	0
	Kilmore Division ...	50	0	0	10	0	0
	Heathcote Division and Waranga South Subdivision ...	398	2	21	60	3	36
	Waranga North Subdivision ...	150	0	0	...	...	...
	Totals ...	3,498	2	21	274	3	36
MARYBOROUGH ...	Maryborough Division ...	2,452	1	20	101	0	0
	Amherst Division ...	160	0	0	60	0	0
	Avoca Subdivision ...	600	0	0	28	1	4
	Dunolly and Tarnagulla Divisions ...	263	0	0	26	0	28
	Korong Division ...	3,500	0	0	1,000	0	0
	Redbank and St. Arnaud South Subdivisions ...	104	0	0	...	...	...
	St. Arnaud North Subdivision ...	121	0	12	14	2	0
	Totals ...	7,200	1	32	1,229	3	32
CASTLEMAINE ...	Castlemaine Division ...	920	2	0	97	2	16
	Fryer's Creek Division ...	2,050	0	0	30	0	0
	Hepburn Division ...	2,135	0	18	123	3	24
	Taradale and Kyneton Subdivision ...	905	3	22	435	3	32
	Tarrangower Division ...	80	1	26	16	1	9
	St. Andrew's Division ...	113	1	6	40	2	5
	Blue Mountain North Subdivision ...	184	0	0	77	0	0
	Totals ...	6,389	0	32	821	1	6
ARARAT ...	Ararat Division ...	46	1	0	...	...	...
	Pleasant Creek Division ...	750	0	0	160	0	0
	Barkly Division ...	15	0	0	...	...	...
	Raglan Division ...	150	0	0	...	...	...
	Totals ...	961	1	0	160	0	0
GIPPSLAND ...	Omeo Subdivision ...	854	0	20	13	3	4
	Mitchell River and Boggy Creek Subdivisions ...	840	0	0	7	0	0
	Crooked River Division ...	220	0	0	50	0	0
	Jericho Division ...	180	0	0	20	0	0
	Donnelly's Creek Division ...	606	2	0	2	0	11
	Stringer's Creek Division ...	220	0	0	...	...	...
	Russell's Creek Subdivision ...	179	2	30	25	2	29
	Bendoc Subdivision ...	121	1	0	50	0	0
	Tarwin Subdivision ...	460	0	0	11	3	0
	Traralgon Subdivision ...	12	0	0	...	...	...
	Totals ...	3,693	2	10	180	1	4

No. 34.

SUMMARY.

ESTIMATED VALUE of the CLAIMS in the several MINING DISTRICTS on the 31st December 1871.

Mining Districts.						Estimated Value of Claims.		
						£	s.	d.
Ballarat District ...	...	...	...	...	...	1,120,630	0	0
Beechworth District	...	...	...	...	...	573,750	0	0
Sandhurst District	...	...	...	...	...	4,567,930	0	0
Maryborough District	...	...	...	...	...	813,650	0	0
Castlemaine District	...	...	...	...	...	1,461,743	0	0
Ararat District ...	...	...	...	...	...	3,271,400	0	0
Gippsland District	...	...	...	...	...	465,943	0	0
Total	...	...	...	...	...	12,275,046	0	0

No. 35.

TABLE showing the ESTIMATED VALUE of the MINING CLAIMS in the several DIVISIONS and SUBDIVISIONS of each Mining District on the 31st December 1871.

Mining Districts.			Mining Surveyors and Registrars' Divisions and Subdivisions.							Value of Claims.		
										£	s.	d.
BALLARAT	...	...	Central Division	...	...	...	...	...	...	341,330	0	0
			Southern Division	...	...	...	...	...	...	53,000	0	0
			Buninyong Division	...	...	...	...	...	...	80,000	0	0
			Smythesdale Division	...	...	...	...	...	...	70,000	0	0
			Creswick Division	...	...	...	...	...	...	460,000	0	0
			Gordon Subdivision	...	...	...	...	...	...	42,300	0	0
			Steiglitz Subdivision	...	...	...	...	...	...	40,000	0	0
			Blackwood Division and Blue Mountain South Subdivision	...	...	...	...	...	...	34,000	0	0
			Total	...	...	...	...	...	1,120,630	0	0	
BEECHWORTH	...	...	Beechworth Division	...	...	...	...	...	...	210,800	0	0
			Yackandandah Division	...	...	...	...	...	...	50,000	0	0
			Indigo Division	...	...	...	...	...	...	36,000	0	0
			Buckland Division	...	...	...	...	...	...	50,500	0	0
			Alexandra Subdivision	...	...	...	...	...	...	91,450	0	0
			Dry Creek Subdivision	...	...	...	...	...	...	10,000	0	0
			Benalla Subdivision	...	...	...	...	...	...	...	...	...
			Gaffney's Creek Subdivision	...	...	...	...	...	...	20,000	0	0
			Wood's Point Subdivision	...	...	...	...	...	...	30,000	0	0
			Big River Subdivision	...	...	...	...	...	...	15,000	0	0
			Mitta-mitta Division	...	...	...	...	...	...	10,000	0	0
			Jamieson Subdivision	...	...	...	...	...	...	50,000	0	0
			Total	...	...	...	...	...	573,750	0	0	
SANDHURST	...	...	Sandhurst Division	...	...	...	...	...	...	4,500,000	0	0
			Kilmore Division	...	...	...	...	...	...	5,000	0	0
			Heathcote Division and Waranga South Subdivision	...	...	...	...	...	...	37,930	0	0
			Waranga North Subdivision	...	...	...	...	...	...	25,000	0	0
			Total	...	...	...	...	...	4,567,930	0	0	
MARYBOROUGH	...	...	Maryborough Division	...	...	...	...	...	...	350,000	0	0
			Amherst Division	...	...	...	...	...	...	26,850	0	0
			Avoca Subdivision	...	...	...	...	...	...	57,000	0	0
			Dunolly and Tarnagulla Divisions	...	...	...	...	...	...	283,000	0	0
			Korong Division	...	...	...	...	...	...	50,000	0	0
			Redbank and St. Arnaud South Subdivision	...	...	...	...	...	...	12,800	0	0
CASTLEMAINE	...	...	St. Arnaud North Subdivision	...	...	...	...	...	...	34,000	0	0
			Total	...	...	...	...	...	...	813,650	0	0
			Castlemaine Division	...	...	...	...	...	...	263,000	0	0
			Fryer's Creek Division	...	...	...	...	...	...	331,000	0	0
			Hepburn Division	...	...	...	...	...	...	200,000	0	0
			Taradale and Kyneton Subdivision	...	...	...	...	...	...	369,866	0	0
			Tarrangower Division	...	...	...	...	...	...	217,677	0	0
			St. Andrew's Division	...	...	...	...	...	...	56,200	0	0
			Blue Mountain North Subdivision	...	...	...	...	...	...	24,000	0	0
			Total	...	...	...	...	...	1,461,743	0	0	

No. 35.—TABLE showing the Estimated Value of Mining Claims, &c.—continued.

Mining Districts.				Mining Surveyors and Registrars' Divisions and Subdivisions.						Value of Claims.			
										£	s.	d.	
ARARAT	{	Ararat Division	12,400	0	0
				Pleasant Creek Division	3,250,000	0	0	
				Barkly Division	6,000	0	0	
				Raglan Division	3,000	0	0	
				Total	3,271,400	0	0	
GIPPSLAND	...	{	Omeo Subdivision	8,885	0	0	
			Mitchell River and Boggy Creek Subdivisions	...	...	...	...	...	8,000	0	0
			Crooked River Division	...	...	...	...	...	12,000	0	0
			Jericho Division	...	...	...	...	...	21,500	0	0
			Donnelly's Creek Division	...	...	...	...	...	25,000	0	0
			Stringer's Creek Division	...	...	...	...	...	327,758	0	0
			Russell's Creek Subdivision	...	...	...	...	...	25,000	0	0
			Bendoc Subdivision	...	...	...	...	...	10,300	0	0
			Tarwin Subdivision	...	...	...	...	...	27,000	0	0
			Traralgon Subdivision	...	...	...	...	...	500	0	0
Total				...	...	...	...	...	465,943	0	0

No. 36.

SUMMARY.

LENGTH of WATER RACES and their APPROXIMATE COST, in the several MINING DISTRICTS, on the 31st December 1871.

Mining Districts.								Length of Races.		Approximate Cost.		
								miles chains.		£	s.	d.
Ballarat District ... ..	...	...	...	...	...	...	...	308	74	30,271	0	0
Beechworth District ... ..	...	...	...	...	...	...	...	1,021	0	185,519	0	0
Sandhurst District ... ..	...	...	...	...	...	...	...	40	0	2,900	0	0
Maryborough District ... ..	...	...	...	...	...	...	...	164	15	4,152	0	0
Castlemaine District ... ..	...	...	...	...	...	...	...	285	0	18,475	0	0
Ararat District ... ..	...	...	...	...	...	...	...	31	5	1,805	0	0
Gippsland District ... ..	...	...	...	...	...	...	...	274	20	26,700	0	0
Totals ... ..	...	...	...	...	...	...	...	2,124	34	269,822	0	0

No. 37.

TABLE showing the LENGTH of WATER RACES and their APPROXIMATE COST, in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, on the 31st December 1871.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.					Length of Races.	Approximate Cost.			Remarks.
BALLARAT ...	{	Central Division ... ..	...	...	...	miles chains.	£	s.	d.	
		Southern Division ... ..	...	...	...	50 0	1,300	0	0	
		Buninyong Division ... ..	...	...	...	3 60	180	0	0	
		Smythesdale Division ... ..	...	...	...	3 0	80	0	0	
		Creswick Division ... ..	...	...	...	16 68	500	0	0	
		Gordon Subdivision ... ..	...	...	...	109 16	13,655	0	0	
		Steiglitz Subdivision ... ..	...	...	...	6 0	156	0	0	
		Blackwood Division and Blue Mountain South Subdivision ... ..	...	...	...	76 0	10,000	0	0	
			...	...	...	44 10	4,400	0	0	
		Totals ... ..	...	...	...	308 74	30,271	0	0	
BEECHWORTH ...	{	Beechworth Division ... ..	...	...	...	382 0	129,100	0	0	
		Yackandandah Division ... ..	...	...	...	221 0	10,000	0	0	
		Indigo Division ... ..	...	...	...	12 0	800	0	0	
		Buckland Division ... ..	...	...	...	158 60	11,044	0	0	
		Alexandra Subdivision ... ..	...	...	...	3 0	350	0	0	
		Dry Creek Subdivision ... ..	...	...	...	30 0	2,100	0	0	
		Benalla Subdivision ... ..	...	...	...	...	...	...	...
		Gaffney's Creek Subdivision ... ..	...	...	...	32 0	6,500	0	0	
		Wood's Point Subdivision ... ..	...	...	...	22 20	6,525	0	0	
		Big River Subdivision ... ..	...	...	...	18 0	4,000	0	0	
	{	Mitta-mitta Division ... ..	...	...	...	120 0	12,000	0	0	
		Jamieson Subdivision ... ..	...	...	...	22 0	3,100	0	0	
		Totals ... ..	...	...	...	1,021 0	185,519	0	0	

No. 37.—TABLE showing the Length of Water Races, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Length of Races.	Approximate Cost.	Remarks.
		miles chains.	£ s. d.	
SANDHURST	Sandhurst Division	40 0	2,900 0 0	
	Kilmore Division ... ..	...	...
	Heathcote Division and Waranga South Sub-division ... ..	...	...
	Waranga North Subdivision ... ..	...	...
	Totals	40 0	2,900 0 0	
MARYBOROUGH	Maryborough Division ... ..	...	...
	Amherst Division	146 0	3,830 0 0	
	Avoca Subdivision	12 60	300 0 0	
	Dunolly and Tarnagulla Divisions	5 35	22 0 0	
	Korong Division ... ..	...	...
	Redbank and St. Arnaud South Subdivisions	...	...
	St. Arnaud North Subdivision ... ..	...	...
	Totals	164 15	4,152 0 0	
CASTLEMAINE	Castlemaine Division ... ..	...	...
	Fryer's Creek Division	26 0	5,740 0 0	
	Hepburn Division	238 0	12,000 0 0	
	Taradale and Kyneton Subdivisions	7 20	260 0 0	
	Tarrangower Division	0 60	60 0 0	
	St. Andrew's Division	6 0	240 0 0	
	Blue Mountain North Subdivision	7 0	175 0 0	
	Totals	285 0	18,475 0 0	
ARARAT	Ararat Division	1 5	5 0 0	
	Pleasant Creek Division	30 0	1,800 0 0	
	Barkly Division ... ..	...	...
	Raglan Division ... ..	...	...
	Totals	31 5	1,805 0 0	
GIPPSLAND	Omeo Subdivision	200 0	20,000 0 0	
	Mitchell River and Boggy Creek Subdivisions	...	...
	Crooked River Division	34 0	680 0 0	
	Jericho Division	17 20	4,000 0 0	
	Donnelly's Creek Division	14 0	1,850 0 0	
	Stringer's Creek Division ... ..	...	...
	Russell's Creek Subdivision	2 40	150 0 0	
	Bendoc Subdivision	6 40	20 0 0	
	Tarwin Subdivision ... ..	...	...
	Traralgon Subdivision ... ..	...	...
	Totals	274 20	26,700 0 0	

In the estimated cost fluming is included.

No. 38.

RETURN of the NUMBER of WATER-RIGHT LICENSES in force on the 31st December 1871.

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
172	1,519 3 30½	437 6 ¹¹ / ₁₀₀	190,099,921	308 3 28	239,198,091	1,006 10 0

No. 39.

THE NUMBER of WATER-RIGHT LICENSES for Gold-Mining purposes issued during the Year 1871 is as follows :—

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
7	71 0 34	20 18 ⁶⁹ / ₁₀₀	8,943,000	9 1 26	11,578,921	38 0 0

No. 40.

SUMMARY.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1871 of Sums lodged with the Wardens' Clerks of the several MINING DISTRICTS as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Balances on hand on the 31st December 1870.	Total Deposits received during 1871.	Total Disbursements made during 1871.	Balances on hand on 31st December 1871.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballarat	99 0 9	300 0 3	214 19 11	184 1 1
Beechworth	698 12 2	1,228 14 6	1,368 11 9	558 14 11
Sandhurst	2,532 11 4	10,027 9 9	4,813 10 10	7,746 10 3
Maryborough	696 0 5	1,932 7 4	1,356 17 1	1,271 10 8
Castlemaine	789 13 2	4,738 4 11	1,647 17 7	3,870 0 6
Ararat	130 18 11	154 10 0	158 8 7	127 0 4
Gippsland	318 5 11	620 2 9	501 14 8	436 14 0
Totals	5,265 2 8	19,001 9 6	10,062 0 5	14,194 11 9

No. 41.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1871 of Sums lodged with the Wardens' Clerks of the several DIVISIONS of the Mining Districts as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Divisions.	Balances on hand 31st December 1870.	Total Deposits received during 1871.	Total Disbursements made during 1871.	Balance on hand 31st December 1871.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLARAT	Ballarat	30 0 0	22 10 0	44 0 6	8 9 6
	Buninyong ... ..	...	...	...	...
	Smythesdale ... ..	...	...	...	...
	Creswick ... ..	...	33 4 0	...	33 4 0
	Gordon ... ..	...	53 11 0	36 15 3	16 15 9
	Steiglitz	24 0 9	114 12 0	65 0 8	73 12 1
	Blackwood	45 0 0	76 3 3	69 3 6	51 19 9
	Clunes ... ..	...	...	...	...
	Totals	99 0 9	300 0 3	214 19 11	184 1 1
BEECHWORTH	Beechworth	15 0 0	85 0 0	71 7 1	28 12 11
	Yackandandah	20 0 0	58 2 0	57 16 8	20 5 4
	Chiltern	6 12 6	15 0 0	6 12 6	15 0 0
	Rutherglen ... ..	...	...	...	...
	Morse's Creek	105 6 2	29 11 0	111 6 10	23 10 4
	Jamieson	83 0 10	130 0 0	103 15 5	49 5 5
	Wood's Point	159 16 4	683 7 6	572 10 6	270 13 4
	Benalla	1 9 10	...	1 9 10	...
	Alexandra	173 4 6	181 16 0	278 13 4	76 2 2
	Mansfield	62 8 1	1 18 0	63 16 0	0 10 1
	Eldorado	71 13 11	44 0 0	40 18 7	74 15 4
	Totals	698 12 2	1,228 14 6	1,368 11 9	558 14 11
SANDHURST	Sandhurst	2,285 1 7	9,410 14 8	4,344 2 9	7,351 13 6
	Kilmore	36 11 4	7 19 0	36 11 4	7 19 0
	Heathcote	60 0 0	494 4 1	248 17 5	305 6 8
	Waranga	85 0 1	90 8 0	94 14 1	80 14 0
	Raywood	31 9 5	...	31 9 5	...
	Graytown	34 8 11	24 4 0	57 15 10	0 17 1
	Totals	2,532 11 4	10,027 9 9	4,813 10 10	7,746 10 3
MARYBOROUGH	Maryborough	294 6 8	431 9 0	382 18 7	342 17 1
	Majorca	15 0 0	43 10 0	33 15 0	24 15 0
	Talbot	63 10 0	143 11 0	142 4 11	64 16 1
	Carisbrook ... ..	...	...	...	...
	Avoca	40 4 0	115 11 0	116 7 0	39 8 0
	Dunolly	103 18 2	143 13 0	175 11 2	72 0 0
	Tarnagulla	12 8 7	210 13 0	12 8 7	210 13 0
	Korong ... ..	...	...	...	...
	Inglewood	56 14 9	722 1 0	305 6 9	473 9 0
	St. Arnaud	109 18 3	121 19 4	188 5 1	43 12 6
	Totals	696 0 5	1,932 7 4	1,356 17 1	1,271 10 8

No. 41.—RECEIPTS, Disbursements, and Balances in hand during the Year 1871 of Sums lodged with the Wardens' Clerks, &c.—*continued.*

Mining Districts.	Divisions.	Balances on hand 31st December 1870.	Total Deposits received during 1871.	Total Disbursements made during 1871.	Balances on hand 31st December 1871.
CASTLEMAINE	Castlemaine	£ 87 5 5	£ 2,428 5 6	£ 323 19 2	£ 2,181 11 9
	Fryerstown... ..	56 8 6	964 11 0	153 14 2	867 5 4
	Daylesford	79 14 6	396 9 0	214 3 0	262 0 6
	Taradale ... ..	...	68 17 0	14 2 3	54 14 9
	Maldon	51 15 0	432 7 0	133 19 5	350 2 7
	Anderson's Creek	432 7 6	351 8 0	614 18 9	138 16 9
	Gisborne ... ..	...	51 2 5	51 2 5	...
	Trentham	9 2 0	...	9 2 0	...
	Kyneton	73 0 3	45 5 0	102 16 5	15 8 10
	Totals	789 13 2	4,738 4 11	1,647 17 7	3,870 0 6
ARARAT	Ararat ... ..	...	22 13 0	7 3 11	15 9 1
	Beaufort ... ..	...	17 3 0	10 9 0	6 14 0
	Stawell	130 18 11	114 14 0	140 15 8	104 17 3
	Landsborough ... ..	...	...	...	...
GIPPSLAND	Totals	130 18 11	154 10 0	158 8 7	127 0 4
	Omeo ... ..	...	...	...	...
	Grant	40 10 0	48 4 0	44 10 0	44 4 0
	Bairnsdale	94 19 2	47 10 0	94 19 2	47 10 0
	Sale ... ..	...	20 0 0	...	20 0 0
	Stringer's Creek	182 16 9	504 8 9	362 5 6	325 0 0
GIPPSLAND	Totals	318 5 11	620 2 9	501 14 8	436 14 0

No. 42.

RETURN of the QUANTITIES of GUNPOWDER Issued, &c., on the several Goldfields during the Year 1871.

Mining Districts.	Quantity in Stock at the commencement of the Year.	Quantity Issued during the Year.	Quantity in Stock at the end of the Year.
	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.
Ballarat District	7 9 2 6	33 1 3 9	3 1 2 12
Beechworth District	0 6 0 3	4 8 2 13	0 12 0 6
Sandhurst District	29 14 3 13	143 19 0 27	16 2 1 8
Maryborough District	4 17 3 2	12 3 1 6	1 19 2 1
Castlemaine District	3 15 3 16	28 3 2 13	1 8 0 14
Ararat District	3 2 2 12	22 2 0 21	1 4 2 3
Gippsland District	0 13 2 13	2 2 2 15	0 15 3 11
Totals ... ..	.50 0 1 9	251 1 1 20	25 3 3 27

NOTE.—In consequence of errors made by the Keepers of the Powder Magazines at Beechworth, Avoca, and St. Arnaud, the quantity of Powder in stock in the Beechworth and Maryborough Districts given in the above return is slightly different from that which appeared in the Mineral Statistics for 1870.

No 43

SUMMARY.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1871.

Mining Districts.	Number of Companies.	Number of Shares.	Nominal Capital.
			£
Ballarat District	46	227,640	365,400
Beechworth District	30	238,240	336,000
Sandhurst District	969	23,912,963	14,404,080
Maryborough District	24	418,550	374,750
Castlemaine District	120	2,164,829	1,322,705
Ararat District	5	27,360	68,000
Gippsland District	12	87,200	118,500
Totals	1,206	27,076,782	16,989,435

NOTE.—It appears from the returns forwarded by the clerks of the courts of mines, that 2 companies have been wound-up, with 6,300 shares, and a nominal capital of £8,600, and that several companies are in process of being wound-up.

For information relative to companies registered and companies wound-up previous to 1st January 1871, see Tables Nos. 43 and 44, *Mineral Statistics* 1870.

No. 44.

MINING COMPANIES REGISTERED in the several Courts of Mines during the Year 1871.

Mining Districts.	Courts.					Number of Companies.	Number of Shares.	Nominal Capital.
								£
BALLARAT	{	Ballarat ...	...	...	...	23	122,810	193,720
		Blackwood ...	...	...	...	1	3,000	6,000
		Buninyong ...	...	...	...	5	39,990	38,980
		Creswick ...	...	...	...	...	...	...
		Steiglitz ...	...	...	...	1	3,000	3,000
		Smythesdale ...	...	...	...	13	15,840	44,700
		Clunes ...	...	...	...	3	43,000	79,000
		Totals ...	...	...	...	46	227,640	365,400
BEECHWORTH	{	Beechworth ...	...	...	...	...	...	...
		Bright ...	...	...	...	4	35,440	74,200
		Chiltern ...	...	...	...	...	...	...
		Jamieson ...	...	...	...	1	30,000	7,500
		Mansfield ...	...	...	...	1	6,000	6,000
		Rutherglen ...	...	...	...	...	...	...
		Wood's Point ...	...	...	...	16	64,700	146,200
		Yackandandah ...	...	...	...	...	...	...
		Alexandra ...	...	...	...	8	102,100	102,100
		Totals ...	...	...	...	30	238,240	336,000
SANDHURST	{	Sandhurst ...	...	...	...	956	23,600,563	14,184,680
		Heathcote ...	...	...	...	9	232,000	166,000
		Kilmore ...	...	...	...	1	2,400	2,400
		Rushworth ...	...	...	...	3	78,000	51,000
		Totals ...	...	...	...	969	23,912,963	14,404,080
MARYBOROUGH	{	Maryborough ...	...	...	...	7	26,300	53,000
		Amherst ...	...	...	...	1	1,250	6,250
		Avoca ...	...	...	...	1	12,000	12,000
		Carisbrook ...	...	...	...	...	...	...
		Dunolly ...	...	...	...	1	3,000	3,000
		Inglewood ...	...	...	...	10	262,000	210,500
		St. Arnaud ...	...	...	...	1	48,000	48,000
		Tarnagulla ...	...	...	...	3	66,000	42,000
		Totals ...	...	...	...	24	418,550	374,750
CASTLEMAINE	{	Castlemaine ...	...	...	...	67	1,461,865	780,100
		Heidelberg ...	...	...	...	9	111,000	86,500
		Daylesford ...	...	...	...	17	189,212	108,000
		Fryerstown ...	...	...	...	16	248,052	208,305
		Kyneton ...	...	...	...	4	27,200	36,800
		Maldon ...	...	...	...	2	48,000	36,000
		Taradale ...	...	...	...	5	79,500	67,000
		Totals ...	...	...	...	120	2,164,829	1,322,705
ARARAT	{	Ararat ...	...	...	...	...	...	...
		Beaufort ...	...	...	...	...	...	...
		Pleasant Creek ...	...	...	...	5	27,360	68,000
		Totals ...	...	...	...	5	27,360	68,000
GIPPSLAND	{	Bairnsdale ...	...	...	...	4	11,000	11,000
		Sale ...	...	...	...	2	18,000	18,000
		Walhalla ...	...	...	...	4	29,200	58,000
		Omeo ...	...	...	...	1	24,000	24,000
		Palmerston ...	...	...	...	1	5,000	7,500
		Totals ...	...	...	...	12	87,200	118,500

No. 45.

RETURN OF MINERS' RIGHTS and BUSINESS LICENSES issued in Victoria during the Year 1871.

Place or District where issued.	Miners' Rights.										Business Licenses.					Total Receipts.									
	1 Year at 5s.	2 Years at 10s.	3 Years at 15s.	4 Years at 20s.	5 Years at 25s.	6 Years at 30s.	7 Years at 35s.	8 Years at 40s.	10 Years at 50s.	15 Years at 75s.	Consolidated Miners' Rights.		Miners' Rights ante-dated. Fee 5s.	Amount received.											
											Number.	Representing Single Rights at 5s.		£	s.			d.							
Mining District of Ballarat ...	13,352	...	1	...	...	...	...	...	...	...	37	1,049	27	3,607	15	0	218	...	12 Months at 10s.	Transfers at 10s.	Business Licenses ante-dated. Fee 2s per cent. on License.	Amount received.	£	s.	d.
Mining District of Beechworth ...	5,638	...	...	...	...	...	...	...	...	...	26	234	9	1,470	5	0	236	1	...	...	...	...	545	0	0
Mining District of Sandhurst ...	6,645	...	...	...	...	...	...	...	...	...	30	196	...	...	...	...	81	...	...	...	...	...	595	0	0
Mining District of Maryborough ...	3,739	...	...	...	...	...	...	...	...	...	6	53	...	...	...	...	161	...	...	...	...	...	202	10	0
Mining District of Castlemaine ...	5,227	1	...	4	...	...	...	...	...	...	12	89	30	1,341	0	0	73	...	...	...	...	...	402	10	0
Mining District of Ararat ...	2,004	13	4	4	2	...	...	...	...	2	6	60	29	546	15	0	30	...	...	...	...	...	182	10	0
Mining District of Gippsland ...	2,153	...	...	...	...	...	...	...	...	...	1	2	1	539	0	0	60	...	...	...	...	...	75	12	6
Melbourne ...	327	...	...	...	...	...	...	...	...	...	10	106	...	...	...	...	4	...	...	...	...	...	150	0	0
Totals ...	39,085	14	5	8	2	...	...	...	...	2	128	1,789	96	10,271	5	0	863	1	...	...	...	...	2,163	2	6

No. 46.

STATEMENT of the REVENUE directly derived from the Goldfields during the Year 1871, compiled from the Treasury Statements of Revenue, &c.

	£	s.	d.
Amount received for Miners' Rights	...	10,075	15 0
Amount received for Business Licenses	...	2,277	14 2
Amount received for Leases of Auriferous and Mineral Lands	...	22,333	16 3
Amount received for Water-right and Searching Licenses	...	919	4 7
Total	...	35,606	10 0

NOTE.—Moneys received from holders of and applicants for Mining Leases under the heads of fees, fines, and forfeitures, are not included in this return.

No. 48.

THE PRICES OF MINING MATERIALS in some of the more important Mining Centres are as follow :—

BALLARAT.—Castings : Iron puddling machines, 16s. per cwt. ; lift pumps, from 6 in. to 22 in., including workings and connections, 21s. per cwt. ; winding and pumping gear, 27s. per cwt. ; water pipe, 13s. 6d. per cwt. ; stamping batteries, with iron frames and fittings connected with 10 stamps, say 10 cwt. per stamp or hammer, according to construction or design, 40 in., iron with wood framing, £30 to £37. Gas pipe, $\frac{3}{4}$ in. to 2 in., 4d. to 1s. 6d. per foot. Iron rivets, £1 8s. to £2 10s. per cwt. Chains, round, sizes $\frac{5}{16}$ in. to 1 in., imported, £1 6s. to £2 10s. per cwt. ; ditto, ditto, made at Ballarat, £1 17s. 6d. to £4 per cwt. Rope : Flat wire, 3 in. x $\frac{3}{16}$ in. to 4 in. x $\frac{3}{16}$ in., £3 10s. to £4 per cwt. ; flat hemp, $4\frac{1}{2}$ in. to 6 in., £3 12s. per cwt. ; round manilla, different sizes, £3 10s. per cwt. Powder : Glazed blasting, £3 6s. 8d. per 100 lbs. Fuze : Single tape, 11s. per dozen coils ; double tape, 14s. to 15s. per dozen coils. Candles, sperm, 11s. per dozen lbs. Oil : Olive, 6s. 6d. to 7s. per gall. ; colza, 6s. per gall. ; castor, 6s. per gall. ; kerosene, 3s. per gall. Tallow : Beef and mutton, £2 2s. per cwt. Quicksilver, 4s. per lb. Picks : Single-ended driving and sinking, £1 16s. to £2 14s. per dozen ; double-ended, £2 8s. to £3 per dozen. Pick-hilts : Hickory, 15s. to 16s. per dozen ; colonial, lightwood, 6s. to 10s. 6d. per dozen. Shovels : Long-handled, £3 6s. to £4 4s. per dozen ; D-handled, £3 to £4 2s. per dozen ; Cornish, socket-handled, £2 14s. per dozen. Shovel-handles : English, 18s. per dozen ; colonial, 10s. to 12s. per dozen. White yarn : Flax packing, 1s. 6d. per lb. Hemp packing, 10d. to 1s. 1d. per lb. Iron : Common, 16s. per cwt. ; best Low Moor, £2 2s. per cwt. Leather : Colonial, for pumps, 1s. 8d. to 2s. per lb. ; English, 2s. 9d. to 3s. per lb. ; belt leather, colonial, 2s. per lb. Gutta percha, sheet, for pump-clacks, 6s. per lb. ; tubing, 9s. per lb. Steel : Cast, £2 16s. to £3 5s. 4d. per cwt. ; blister, £1 16s. to £2 16s. per cwt. ; shear, £3 5s. 4d. per cwt. ; spring, £1 17s. 4d. per cwt. ; Stubbs' No. 2, £4 4s. per cwt.

CRESWICK.—Castings : Stamp-head and beds, 15s. to 17s. per cwt. ; wheels, &c., 24s. per cwt. Hemp rope, 3 in. to 8 in., 82s. 6d. per cwt. Blasting powder, 1s. to 1s. 6d. per lb. Fuze, 12s. to 13s. per dozen coils. Candles, 11s. to 12s. per dozen lbs. Oil : Colza, 6s. 6d. to 7s. per gall. ; machine, 6s. 6d. per gall. Tallow, 37s. per cwt. Quicksilver, 2s. 3d. to 3s. 6d. per lb. Picks, 48s. to 72s. per dozen. Pick-handles, 11s. to 16s. per dozen. Shovels, long-handled, 60s. to 74s. per dozen. Leather, English, for pumps, 2s. 6d. per lb. Cotton waste, 7d. to 8d. per lb. Iron, common, 16s. 6d. per cwt. Steel : Cast, 74s. per cwt. ; blister, 56s. per cwt. Sheet indiarubber, 4s. to 5s. 6d. per lb.

BRIGHT.—Castings, plain, 31s. per cwt. Hemp and wire rope, respectively, 93s. 4d. per cwt. Chain, small and medium, 6d. per lb. Blasting powder, 1s. to 1s. 2d. per lb. Indiarubber, double tape fuze, 15s. per dozen coils. Best sperm candles, 15s. per dozen lbs. Oils : Colza, 9s. per gall. ; Chinese, 7s. 6d. per gall. ; olive, 9s. per gall. ; kerosene, 5s. per gall. Quicksilver, 4s. 6d. per lb. Picks (Collins') : Double-ended, 90s. per dozen ; single-ended, 80s. per dozen ; handles, 20s. per dozen. Best long-handled shovels, 102s. per dozen ; best short-handled shovels, 78s. per dozen. Leather : Colonial, 1s. 8d. per lb. ; English, 3s. 6d. per lb. Common iron, 32s. 8d. per cwt. Steel : Cast, 84s. per cwt. ; blister, 84s. per cwt. Carriage : In summer, per ton, £8 ; in winter, per ton, £15.

WOOD'S POINT.—Castings of white metal (hematite), 32s. to 35s. per cwt. ; extra size, 80s. to 90s. per cwt. Powder (best glazed), 100s. per 100 lbs. Fuze, 15s. per dozen coils. Candles, 16s. per dozen lbs. Oil : Castor, 10s. per gall. ; olive, 10s. per gall. Quicksilver, 4s. 6d. per lb. Mining pick-heads, 18s. per dozen. Pick-handles, 18s. per dozen. Shovels : Long-handled, 110s. per dozen ; short-handled, 90s. per dozen. Leather, belting and grain, 1s. 6d. per lb. Vulcanized indiarubber belting, four-ply, 4s. 3d. per foot. Iron, best wrought, 37s. 6d. to 40s. per cwt. Steel : Cast, 76s. to 80s. per cwt. ; blister, 75s. per cwt. Nuts, bolts, 1s. per lb.

SANDHURST.—Stamper-boxes, 18s. per cwt. Stamper-heads, 25s. per cwt. Shoes, 16s. per cwt. Pump piping, £14 10s. per ton. Water pipe, English, 12s. per cwt. Belt pulleys, 24s. per cwt. for the casting only. Cams, 1s. per lb. Discs, 1s. per lb. Bar iron, BBH, 18s. per cwt. ; large size forged scrap, 8d. to 9d. per lb. Octagon steel, 48s. 6d. per cwt. Nails, 32s. per cwt., average. Gratings or sieves for stamper-boxes, 1s. 6d. per square foot. Quicksilver, 3s. 9d. to 4s. per lb. Sheet copper, 1s. 4d. per lb. Shovels : Short-handled, 6s. 6d. ; long-handled, 6s. 6d. Picks, 9d. per lb. Pick-handles, colonial, 9s. per dozen. Candles : Kitchen's colonial, 11d. per lb. ; sperm, 1s. 1d. per lb. Oils : Castor, 4s. 6d. per gall. ; neatfoot, 5s. 6d. to 6s. per gall. ; kerosene, 3s. 1d. per gall. Tallow, 3d. per lb. Powder, 1s. 3d. per lb. Fuze, Bickford's double tape, 1s. 4d. per coil, per cask ; single, 9s. per dozen. Pump Leather : Colonial, 1s. 6d. per lb. ; English, 2s. 6d. per lb. Leather belting, 8 in., 4s. per lb. Engine packing, 1s. 6d. to 2s. per lb. Cotton waste, 6 $\frac{1}{2}$ d. to 8d. per lb. Nitric acid, 1s. 6d. per lb. ; muriatic, 1s. per lb. Bolts and nuts, 4 $\frac{1}{2}$ d. per lb. Sheet indiarubber, 6s. per lb. Copper rivets and tacks, 2s. per lb. Gun cotton, £7 per box of 500 charges. Iron rails, 14 lb., £14 10s. ; 15 lb., £14 ; 16 lb., £13 10s. Indiarubber belting, 5 x 3, 2s. 6d. per foot. Best manilla rope, 72s. per cwt. Rope wire : Best black charcoal, fine strand, 65s. per cwt.

MARYBOROUGH.—Castings : Whim and truck wheels, 18s. per cwt. ; chains, short links, &c., 42s. per cwt. Rope, manilla, $\frac{1}{2}$ in. to 1 in., 10d. per lb. ; ditto, 1 in. to 6 in., 70s. per cwt. Powder, blasting, 100s. per 100 lbs. Fuze, colonial, 9s. per dozen coils. Candles, sperm, 12s. per dozen lbs. Oils : Colza, 6s. per gall. ; castor, 6s. per gall. ; kerosene, 3s. to 3s. 3d. per gall. ; olive, 8s. per gall. Quicksilver, 4s. 6d. per lb. Iron, best BBH, 17s. per cwt. Steel : Cast, 60s. per cwt. ; blister, 47s. per cwt. ; shear, 56s. per cwt. Leather : English hide, 2s. 6d. to 3s. 6d. per lb. ; belt, 1s. 10d. per lb. Tallow : Mutton, 31s. per cwt. ; beef, 30s. per cwt. Green hides, for buckets, 25s. 6d. each. Picks, driving and sinking, single ends, weight 3 to 6 lbs., 30s. to 60s. per dozen. Pick-hilts, colonial, 9s. per dozen. Shovels, American, 66s. to 72s. per dozen.

CASTLEMAINE.—Castings : Heavy, as stampers, &c., 16s. to 18s. per cwt. ; wheels, gear, &c., 20s. to 22s. per cwt. ; pipes, &c., 16s. to 20s. per cwt. Rope, manilla, 74s. per cwt. Powder, blasting, 100s. per cwt. Fuze, double tape, 13s. per dozen coils. Candles, sperm, 11s. 6d. per dozen lbs. Oils : Colza, 7s. per gall. ; olive, 8s. 6d. per gall. ; castor, 6s. 6d. per gall. Tallow, 28s. per cwt. Pick-hilts, 8s. 6d. to 15s. per dozen. Shovels, American, 63s. to 74s. per dozen. Leather : Colonial, 10d. to 1s. 3d. per lb. ; English, 2s. to 3s. per lb. ; Cotton waste, 9d. per lb. Iron, BBH, 16s. per cwt. Steel : Cast, 64s. 6d. per cwt. ; blister, 50s. per cwt.

MALDON.—Castings : Stamp-heads, 17s. per cwt. Chains, $\frac{5}{16}$ in. to $\frac{3}{4}$ in., 5d. per lb. Rope, 8-in. manilla, 7 $\frac{1}{2}$ d. per lb. Powder, 10d. per lb. Fuze, 12s. to 14s. per dozen coils. Candles, sperm, 11d. per lb. Tallow, &c., 4d. per lb. Oil : Colza, 7s. per gall. ; olive, 7s. 6d. per gall. ; kerosene, 3s. 3d. per gall. Picks, 11d. per lb. Pick-handles, she-oak, 12s. per dozen. Shovels, English, short-handled, 6s. each. Leather, English, butts, 3s. 6d. per lb. Hemp, 2s. per lb. Iron, best wrought, 17s. 6d. Steel, 54s. per cwt. Quicksilver, 4s. 7d. per lb.

ABARAT.—Castings : Fire-bars, truck-wheels, &c., 24s. per cwt. Rope, manilla, 7 inch, 72s. per cwt. Powder, blasting, 112s. per cwt. Fuze, 14s. per dozen coils. Candles, stearine, 12s. per dozen lbs. Oil : Colza, 6s. 6d. per gall. Tallow, beef, 40s. per cwt. ; Picks, common driving, 40s. per dozen. Pick-handles, she-oak, 7s. per dozen. Shovels, short handles, 60s. per dozen. Leather, English butts, 2s. 9d. per lb. Iron, best wrought, 18s. 6d. per cwt. Steel, cast, 50s. to 70s.

BENDOC.—Oils : Castor, about 7s. 6d. per gall. ; kerosene, 3s. 6d. per gall. Quicksilver, 3s. 9d. per lb. Candles, sperm, 14s. per dozen lbs. Stamp-heads, shoes, and bottoms, 30s. per cwt. Shovels (Collins') : Short-handled, 70s. per dozen ; long-handled, 96s. per dozen. Picks (Collins') : Hammer-headed, 70s. per dozen ; double-ended, 78s. per dozen. Pick-handles, 12s. to 16s. per dozen. Iron, 30s. per cwt. Steel, 60s. per cwt. Powder, blasting, 1s. per lb. Rope, manilla, 5 inch, 78s. per cwt. ; ditto, 2 $\frac{1}{2}$ inch, 78s. per cwt.

No. 49.

TABLE showing approximately the QUANTITY and COST of TIMBER consumed annually for Mining Purposes in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

								£	s.	d.			
BALLARAT	...	{	Firewood, &c.	308,335 tons	181,749	8	10			
			Props and Cap-pieces	...	...	...	1,281,327 pieces			
			Laths and Slabs	...	...	...	3,677,526 pieces			
			Sawn Timber	...	...	...	4,587,450 feet ...			
BEECHWORTH	...	{	Firewood, &c.	52,194 tons	37,210	17	0			
			Props and Cap-pieces	...	...	...	131,375 pieces			
			Laths and Slabs	...	...	...	831,950 pieces			
			Sawn Timber	...	...	...	537,700 feet ...			
SANDHURST	...	{	Firewood, &c.	263,900 tons	107,033	1	8			
			Props and Cap-pieces	...	...	...	299,800 pieces			
			Laths and Slabs	...	...	...	736,500 pieces			
			Sawn Timber	...	...	...	880,500 feet			
MARYBOROUGH	...	{	Firewood, &c.	112,270 tons	54,684	13	9			
			Props and Cap-pieces	...	...	...	204,625 pieces			
			Laths and Slabs	...	...	...	835,780 pieces			
			Sawn Timber	...	...	...	486,828 feet			
CASTLEMAINE	...	{	Firewood, &c.	88,640 tons	31,810	7	10			
			Props and Cap-pieces	...	...	...	121,412 pieces			
			Laths and Slabs	...	...	...	83,645 pieces			
			Sawn Timber	...	...	...	554,525 feet			
ARARAT	...	{	Firewood, &c.	63,512 tons	19,715	6	6			
			Props and Cap-pieces	...	...	...	7,800 pieces			
			Laths and Slabs	...	...	...	53,600 pieces			
			Sawn Timber	...	...	...	205,000 feet ...			
GIPPSLAND	...	{	Firewood, &c.	13,463 tons	10,959	11	2			
			Props and Cap-pieces	...	...	...	62,483 pieces			
			Laths and Slabs	...	...	...	93,905 pieces			
			Sawn Timber	...	...	...	179,325 feet			
Total Cost								£443,163	6	9

No. 50.

THE FOLLOWING PARTICULARS, which have been collected by the Mining Surveyors and Registrars, relate to the weight and cost of the Stamp-heads and Shanks or Lifters made use of in some of the principal Gold Mines in the several Mining Districts, and supply additional information connected with the process of crushing Quartz.

In the BALLARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. to 8 cwt., and the cost is from £3 15s. to £12. The height the stamp-head falls ranges from 6 to 10 inches. The number of strokes made per minute is from 56 to 83. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 3 tons 10 cwt. The number of holes per square inch in the gratings used is from 64 to 196. The horse-power required to work each stamper is from 1 to 1.25. The quantity of water used per stamp-head in crushing varies from 100 gallons to 600 gallons per hour. The quantity of mercury used in the ripples per stamper is from 9 to 38 lbs. The quantity of mercury lost per stamp-head per week is from $\frac{1}{2}$ oz. to 6 ozs.

In the BEECHWORTH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 3 cwt. 20 lbs. to 8 cwt., and the cost is from £5 3s. 10d. to £40. The height the stamp-head falls ranges from 6 to 14 inches. The number of strokes made per minute is from 54 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 15 cwt. to 2 tons 10 cwt. The number of holes per square inch in the gratings used is from 80 to 170. The horse-power required to work each stamper is from 0.50 to 1.50. The quantity of water used per stamp-head in crushing varies from 70 gallons to 1000 gallons per hour. The quantity of mercury used in the ripples per stamper is from 4 to 70 lbs. The quantity of mercury lost per stamp-head per week is from $\frac{1}{2}$ oz. to 10 ozs.

In the SANDHURST MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. to 8 cwt., and the cost is from £5 to £15. The height the stamp-head falls ranges from 8 to 12 inches. The number of strokes made per minute is from 64 to 72. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 10 cwt. to 3 tons. The number of holes per square inch in the gratings used is from 64 to 180. The horse-power required to work each stamper is from 0.75 to 1.25. The quantity of water used per stamp-head in crushing varies from 200 to 260 gallons per hour. The quantity of mercury used in the ripples per stamper is from 10 to 50 lbs. The quantity of mercury lost per stamp-head per week is from 6 dwts. to 6 ozs.

In the MARYBOROUGH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. to 8 cwt., and the cost is from £5 to £20. The height the stamp-head falls ranges from 6 to 14 inches. The number of strokes made per minute is from 50 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 2 cwt. to 3 tons. The number of holes per square inch in the gratings used is from 80 to 160. The horse-power required to work each stamper is from 0.83 to 2. The quantity of water used per stamp-head in crushing varies from 162 to 1000 gallons per hour. The quantity of mercury used in the ripples per stamper is from 8 to 45 lbs. The quantity of mercury lost per stamp-head per week varies from 0.06 to 12 ozs.

In the CASTLEMAINE MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. 2 qrs. to 8 cwt., and the cost is from £4 1s. to £13. The height the stamp-head falls ranges from 6 to 15 $\frac{1}{2}$ inches. The number of strokes made per minute is from 50 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons 2 cwt. 2 qrs. The number of holes per square inch in the gratings used is from 64 to 144. The horse-power required to work each stamper is from 0.50 to 1.25. The quantity of water used per stamp-head in crushing varies from 27 to 840 gallons per hour. The quantity of mercury used in the ripples per stamp-head is from 4 to 20 lbs. The quantity of mercury lost per stamp-head per week varies from 0.5 to 32 ozs.

In the ARARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. 3 qrs. to 7 cwt. 2 qrs., and the cost is from £7 7s. 6d. to £12. The height the stamp-head falls ranges from 6 $\frac{1}{2}$ to 10 inches. The number of strokes made per minute is from 45 to 75. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons. The number of holes per square inch in the gratings used is from 120 to 256. The horse-power required to work each stamper is 1 to 1.25. The quantity of water used per stamp-head in crushing varies from 100 to 800 gallons per hour. The quantity of mercury used in the ripples per stamper is from 40 to 70 lbs. The quantity of mercury lost per stamp-head per week is from 3 to 3.2 ozs.

In the GIPPSLAND MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 2 cwt. 2 qrs. to 8 cwt., and the cost is from £7 to £60. The height the stamp-head falls ranges from 6 $\frac{1}{2}$ to 10 inches. The number of strokes made per minute is from 35 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons 18 cwt. The number of holes per square inch in the gratings used is from 80 to 210. The horse-power required to work each stamper is from 0.50 to 1.50. The quantity of water used per stamp-head in crushing varies from 40 to 1042 gallons per hour. The quantity of mercury used in the ripples per stamper is from 10 to 120 lbs. The quantity of mercury lost per stamp-head per week varies from 1 to 14 ozs.

METALLIFEROUS MINERALS, COAL, LIGNITE, CLAYS, SLATES,
AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

According to the returns made to the Department, the following quantities have been raised :—

				Silver Ores.	Silver.
				tons.	ozs. dwts.
Previously—up to 31st December 1870	...	...	...	11,348	18,353 8
From 1st January to 31st December 1871	...	...	...	Nil	Nil
Totals	...	...	...	11,348	18,353 8

The following statement of Exports has been supplied by the Customs Department :—

Year.				Silver Ores.	Silver.
				tons cwt.	ozs. dwts.
1861	...	...	...	10 6	...
1864	...	...	...	...	4,207 15
1865	...	...	...	...	4,954 0
1867	...	...	...	...	366 2
1868	...	...	...	...	5,604 9
1869	...	...	...	...	Nil
1870	...	...	...	...	Nil
1871	...	...	...	...	236 0
Totals	...	...	...	10 6	15,368 6

According to the Customs returns, 700 ozs. (not the produce of Victoria) were exported during the year 1871.

During the year four leases were declared void for non-fulfilment of covenants. The aggregate area of the land which they included was 115a. 3r. 5p. One was surrendered with the view of obtaining a new lease, which was the only one issued during the year.

On the 31st December there were only three leases in force, comprising an area of 424a. 1r. 36p.

Mr. James Rowan, the Warden's Clerk at St. Arnaud, reports, with reference to the St. Arnaud Silver Mines Company, that the company had to suspend operations during the past year for want of capital, and that the company's agent, Mr. Lang, went to England several months ago for the purpose of forming a large company with sufficient capital to work the mines with profitable results.

Mr. Rowan continues—"I may remark that the Rising Star and some other claims in this district have been crushing quartz during the past year, which yielded a considerable quantity of mixed metal (gold and silver); but I regret I am unable to obtain any definite or reliable information as to the quantity of silver extracted therefrom, in consequence of the absence from the colony of the manager of the Rising Star Company."

Traces of silver have been found by the lessees of a galena lease at Murindale Creek, in the Gippsland division.

A sample of quartz which was got from Ringwood was, on examination, found to contain 7 ozs. of silver per ton, 45 per cent. of antimony, and a trace of gold. The silver was found to vary in different portions of the specimen.

A sample of silver-lead ore has been received from Mr. Warden Howitt, which was found to contain 18 ozs. 5 dwts. 20 grs. of silver per ton of ore. It was said to have been obtained from near the junction of Deddick and Snowy Rivers.

An examination of a sample of antimonial lead ore from the the Dargo River showed it to contain 7 ozs. 7 dwts. of silver per ton.

Mr. Warden Howitt forwarded to the Office of Mines a specimen of fine-grained galena, which he stated was obtained from the Thirty-mile Creek, Dargo High Plains. When assayed this specimen gave results equal to an average of 5 ozs. 8 dwts. 22 grs. of silver per ton of ore.

TIN.

The following statement of Exports has been received from the Customs Department :—

TIN ORE.				tons cwt.
Previously—up to 31st December 1870	...	...	...	3,286 17
From 1st January to 31st December 1871	...	...	...	250 0
Total	...	...	...	3,536 17
TIN.				lbs.
Previously—up to 31st December 1870	...	...	...	28,880
From 1st January to 31st December 1871	...	...	...	17,808
Total	...	...	...	46,688

The following information is supplied by Mr. Warden Alley :—

"The tin (black sand) raised during the year amounted to 333 tons; the quantity shipped, 193 tons. The price per ton on the spot is £60; the price in England ranged from £72 to £92 per ton. The following are the localities in which it was raised, viz. :—

	tons.
Eldorado	253
Woolshed	40
Sebastopol	20
Other places	20
Total	333

"The quantity of tin smelted in the division was only 30 tons; the percentage of yield was about 68. Of the smelted tin 6 tons were exported. The price on the spot is £128 and in Melbourne £132."

It will be seen that the value, on the spot, of the tin ore (black sand) obtained in the Beechworth district during the past year was £19,980.

Two leases, for 297a. 1r. 31p., were granted during the year, and three, comprising 582a. 0r. 34p., were declared void. At the end of 1871 the number of leases in force was three, and the area leased 307a. 1r. 21p.

It is observable that, notwithstanding the increase in the quantity of black sand obtained in the Beechworth district (333 tons, against 215 tons in 1870), the number of leases in force shows a decrease at the end of 1870.

Five searching licenses were, however, granted during the year, for an aggregate area of 2880 acres.

The Mining Registrar for the Beechworth division reported the following return of gold and black sand for the quarter ending 31st March 1871:—

	Gold.			Black Sand.		
	ozs.	dwt.	grs.	tons	cwt.	qrs.
McEvoy Company	822	3	0	16	6	0
Kneebone Company	566	14	0	11	0	0
Ovens Gold and Tin Company	1,004	14	15	19	8	0
Totals	2,393	11	15	46	14	0

And for the quarter ending 30th June 1871 he reported as follows:—

"At Eldorado mining operations are brisker, and it is anticipated that in the course of three or four months this locality will be raising more gold and sand than at any former period. During the quarter the Ovens Gold and Tin Mining Company obtained 1664 ozs. 4 dwts. of gold and 34½ tons of black sand, which is equal to any return ever obtained here. The Wellington Company have bottomed both shafts at a depth of 244 feet, with 10 feet of wash, containing a splendid prospect of gold and tin. They are opening out from both shafts, so that in a short time this company will be giving returns. The McEvoy Company have erected their new machinery and plant, and the whole is now in working order. A fortnight's washing from this claim gave 294 ozs. of gold and 6 tons of black sand."

Traces of oxide of tin were found in a sample of titaniferous iron sand, which was said to have been obtained from the bed of a tributary of the Little Yarra River.

COPPER.

According to the returns received the following quantities of copper ore have been raised:—

	tons
Previously—up to 31st December 1870	855
From 1st January to 31st December 1871	Nil
Total	855

The following statement of Exports has been received from the Customs Department:—

	tons	cwt.
Previously—up to 31st December 1870	8½	15
From 1st January to 31st December 1871 (copper)	0	8
Total	85	3

One lease only was in force on the 31st December 1871, for an area of 625a. 0r. 12p.

The Mining Registrar for the Stringer's Creek division, in his report for the quarter ending 31st December 1871, says:—

"The Thomson River copper mine is now being worked by a party of tributers, who are engaged in smelting the refuse from the various smeltings performed by the company. The first discharge from the furnace has been satisfactory in result, and proves that the smelting operations previously carried on were ineffective; the regulus obtained by the tributers is estimated to yield 80 per cent. copper; this will be again smelted, and the pure metal produced on the ground. Several miners are also engaged in the mine stoping. The leads of copper as yet are thin, but very rich."

Impure clayey chrysocolla (silicate of copper) was found in a sample of vein stuff got in Bloomfield's Gully, Omeo, and forwarded to this office by Mr. Warden Howitt.

ANTIMONY.

According to returns received, the following quantities have been raised:—

ANTIMONY ORE.					tons	cwt.
Previously—up to 31st December 1870 ... ..	...	...	...	...	6,032	18
From 1st January to 31st December 1871 ... ..	...	...	...	...	1,575	1
Total ... ..	...	...	...	...	7,607	19

The following statement of Exports has been received from the Customs Department:—

	Antimony Ore.	Antimony Regul.	Antimony.
	tons cwt.	tons cwt.	tons cwt.
Previously—up to 31st December 1870	4,328 16	64 8	210 5
From 1st January to 31st December 1871	1,422 13	135 6	106 10
Totals	5,751 9	199 14	316 15

The Costerfield Gold and Antimony Mining Company still continue to obtain from their workings by far the greater portion of the antimony ore raised in the colony. The produce of their mines during the year was 1278 tons. From the mines at Ringwood nearly 257 tons were obtained.

The manager of one of the Ringwood companies reports that the value of the best quality of ore is £6 per ton, while that of inferior quality is worth £2 10s. per ton. He adds, "We find considerable difficulty in disposing of the inferior quality, a large quantity being still on the ground, for which we have been unable to get a customer up to the present time."

He also states, "We are now down 140 feet in main shaft, and are a good deal troubled with water. After driving 55 feet south along the line of reef at the above level we have just struck sulphide of antimony, of fine quality, running underfoot."

From a report by Mr. Warden Akehurst, of Kilmore, it would appear that efforts have been made to open a trade in antimony from the Running Creek, but without much success.

A sample of antimony ore from Ringwood, which had the appearance of the ordinary hydrous brown oxide of iron found in quartz reefs, was, on examination, proved to contain an average of 45 per cent. of antimony. The antimony in the sample was present in the form of oxide.

Another sample of oxide of antimony (cerwantite) from the same place was found, when assayed, to yield 68 per cent. of metallic antimony.

Specimens of antimonial lead ore, containing the sulphides of antimony and lead in variable proportions, have been examined. They were left at this office by Mr. J. A. Wallace, who stated they were got from a lode about 2 feet in thickness near the Dargo River.

The Mining Registrar at Blackwood, in forwarding a specimen of antimony ore for examination, stated "it was found on the surface, and no properly defined lode has as yet been discovered." This specimen contained 70 per cent. of sulphide of antimony and 2 or 3 per cent. of oxide of antimony.

An assay of a sample of ferruginous antimony ochre yielded over 31 per cent. of antimony. This ochre was obtained from Ringwood.

Antimony ore was reported to have been found in considerable quantity at Sunday Creek, Kilmore, and in the neighborhood of Tooborac, to the south of Heathcote.

At Lower Costerfield a new lode of antimony has been discovered, which is said to be from 3 to 4 feet in width.

Four new leases, comprising 80a. 0r. 12p., were granted during the year, and an equal number of leases, for 103a. 1r. 33p. were declared void for non-fulfilment of covenants.

There were nine leases in force at the end of the year, and the area leased was 154a. 2r. 29p.

One searching license, for an area of 50a., was issued during the year.

LEAD.

According to returns received, it appears that the following quantities of lead ore have been raised:—

	tons.
Previously—up to 31st December 1870	100
From 1st January to 31st December 1871	45
Total	145

Messrs. Riley and Co., from whose workings at Murindale the whole of the lead ore raised during the year was obtained, report that small parcels smelted show 75 per cent. of lead, with traces of silver. A company is being formed with the view of properly developing the mine.

One searching license was issued during the year, for an area of 450a. 3r.

A specimen of fine-grained galena—associated with crystalline carbonate of lead (cerussite), copper pyrites, and traces of phosphate and sulphate of lead—was found, when assayed, to contain about 56 per cent. of lead. This specimen was got from the Dargo High Plains.

A sample of antimonial lead ore, containing the sulphides of lead and antimony, has been left at the Office of Mines. It was said to have been obtained from a lode about 2 feet in width, situated on the Dargo River.

The Mining Registrar at Maryborough sent to the Office of Mines an alloy of lead and gold for examination. He stated that it came from one of the alluvial claims at Chinaman's Flat, Maryborough. The composition of the alloy was:—

Lead	29 0
Gold	71 0
	100 0

Mr. Warden Howitt forwarded to the Mining Department a sample of a mixed fine and coarse grained galena, which was said to have been obtained near the junction of the Deddick River and the Snowy River. An examination of this sample showed it to contain 76 per cent. of lead.

BISMUTH.

The Mining Registrar at Omeo states that "large pieces of bismuth have been found in the goldworkings on Wombat Creek, but the lode is not yet discovered."

MANGANESE.

Mr. Warden Howitt forwarded to the Mining Department a sample of manganese ore, which was got from a vein situated at Clifton Creek, about five miles from Bairnsdale. Mr. Howitt says—"The vein appears, to judge from surface indications, to be about 3 feet or 3 feet 6 inches in width. It is in a soft slaty rock, apparently lower palæozoic. * * * * * The ore appears in several other places."

The following is an extract from the report of Mr. J. Cosmo Newbery, analyst to the department, of the examination of the sample:—

"Manganese ore.—Variety of wad. Its hardness is from 4 to 6, and its composition variable. A qualitative analysis gives manganese, iron, alumina, lime, and baryta. In the purer portions the manganese amounts to about 40 per cent. of the whole, while in some others the composition is that of an earthy brown iron ore, containing only traces of manganese."

COAL AND LIGNITES.

COAL.

According to returns received, it appears that the following quantities have been raised:—

	tons.
Previously—up to 31st December 1870	2,033
From 1st January to 31st December 1871	Nil
Total	2,033

The search for coal has been carried on during the year with increasing energy. Seventeen searching licenses were granted, with an aggregate area of 8631a. 1r. 34p., and one lease was issued for an area of 639a. 2r. 38p.

The leases in force at the end of the year were four, and embraced an area of 2482a. 3r. 33p.

Fresh discoveries of coal are reported to have been made in the neighborhood of Western Port. One seam was said to have been from 2 to 4 feet in thickness, and composed of superior coal to that imported from New South Wales.

Coal was said to have been found in the vicinity of Colac, outcropping on the surface.

The Mining Registrar for the St. Andrew's West and South subdivisions says, in his report for the quarter ending 31st December 1871:—

"The Western Port Coal Company are about to build a jetty at Griffith's Point, and to construct a tramway from that place to the mine, so that I anticipate that by next quarter I shall be able to report that active coal mining operations have been commenced."

The Mining Registrar for the Tarwin subdivision, in his September (1871) quarterly report, states:—

"A persevering prospector, Mr. Brown, has just arrived here, having travelled by himself from Bunyeep, on the Melbourne road, to Stockyard Creek, a distance of about 60 miles, through dense scrub and forest for a great part of the way. He reports his course to have been partly through coal formation, in which he has found some seams of seemingly valuable coal, somewhere at the head of the Tarwin River, and about 25 miles N.W. from here. They are described as being situated not far from a stream which appears navigable, though this is doubtful. One seam is said to be 6 feet thick."

A sample of coal from Kilcunda, near Griffith's Point, was sent to the Office of Mines by the Hon. G. V. Smith, M.P., for examination. Mr. Cosmo Newbery, analyst to the department, reported on the sample, as follows:—

"The specimen consists of a bright-black non-caking coal, occurring in bands between thin layers of a duller coal consisting chiefly of plant remains. A quantitative analysis of a sample of the whole gave the following results:—

Water	...	...	...	...	...	...	6.59
Volatile hydro-carbons	...	...	...	...	...	...	32.25
Fixed carbon	...	...	...	...	...	...	56.38
Ash	...	...	...	...	...	...	4.78
							<u>100.00</u>

On account of its not affording a good coke this coal is more suitable for steam purposes than for the manufacture of gas, of which, however, it will yield between 7000 and 8000 cubic feet per ton."

Coal is reported to have been found in a creek about fifteen miles distant from Benalla.

LIGNITE.

According to returns received, it appears that the following quantities have been raised:—

Previously—up to 31st December 1870	...	...	...	...	...	tons.
From 1st January to 31st December 1871	...	...	...	...	...	997
						<u>995</u>
Total	...	...	...	...	...	1,992

The Brown Coal Company (limited), Lal-lal, is in course of being wound up, with a view of forming a new company with sufficient capital to carry on the works on a large scale.

During the year the company raised 995 tons of brown coal, of which about half was saleable; but the remainder was of the description known as fresh or wet. Hitherto the company has endeavored to make this description of brown coal saleable by ordinary "air or shed drying," but this has proved altogether insufficient.

It is intended that the new company shall adopt artificial methods of drying and compressing, and also attempt the manufacture of photogen lubricating oils, potash, &c.

The Mining Registrar for the Buckland division forwarded to the Office of Mines a specimen of lignite, which was obtained in a claim situated on the north-eastern slope of the Dividing Range, between the Dargo River and Cobungra Creek. The specimen was got from a seam which occurred in a layer of black loam. The extent of the layer was not ascertained.

A seam of lignite of considerable thickness is reported to have been discovered in the Cape Otway Ranges.

CLAYS.

According to returns received, the following quantities of KAOLIN have been raised:—

Previously—up to 31st December 1870	...	...	...	...	...	tons.
From 1st January to 31st December 1871	...	...	...	...	...	1,757
						<u>50</u>
Total	...	...	...	...	...	1,807

One lease was issued during the year, for an area of 5a. 2r. 28p.

A sample of a fine clay suitable for the manufacture of crude pottery and bricks has been examined at the Office of Mines. It was got from Preston, near Melbourne.

Another sample of clay found near Lilydale was found to consist of nearly pure silicate of alumina. This clay would make a good potters' clay and fullers' earth.

The Mining Registrar for the St. Andrew's West and South subdivisions, in his report for the quarter ending 30th September 1871, says:—"The lessee of the kaolin mine at Bulla Bulla has received a large order for China, and the mine is in full operation."

A clay suitable for the manufacture of ordinary earthenware, or as a fire-clay, is reported to have been found in quantity at Boroondara, near Melbourne.

A large deposit of fullers' earth is said to have been found near the Clifton Springs at Drysdale.

FLAGS AND SLATES.

FLAGGING.

According to returns received, it appears that the following quantities have been raised:—

Previously—up to 31st December 1870	...	...	...	tons	cwt.	square yards.
From 1st January to 31st December 1871	...	...	...	3,918	15½	78,660
				1,713	0	<u>1,500</u>
Totals	...	...	...	5,631	15½	80,160

SLATES.

The returns received show that there have been raised:—

Previously—up to 31st December 1870	...	...	...	slates.	tons.
From 1st January to 31st December 1871	...	...	...	11,000	160
				Nil	<u>Nil</u>
Totals	...	...	...	11,000	160

Four leases have been issued during the year of slate and flagging and slate and freestone quarries; the aggregate area was 346a. 3r. 22p. The number of slate, flagging, and freestone leases at the end of the year was 8, the total area 756a. 0r. 33p. One searching license, for an area of 7a. 3r. 39p., was issued during the year.

The Mining Registrar for the St. Andrew's West and South subdivisions reports as follows, in his report for the quarter ending June 1871:—"The slate quarries at Bullengarook opened up by Dr. Jordan about eighteen months ago have been abandoned in the meantime, as better slate has been found nearer to the Melbourne, Mount Alexander, and Murray River Railway. Applications for the lease of three blocks at this place have been made, the aggregate area of which is 392 acres."

MISCELLANEOUS MINERALS.

MAGNESITE.

No magnesite or carbonate of magnesia is reported to have been raised during the year.

BASIC SULPHATE OF IRON.

18 tons 19 cwt. 3 qrs. of basic sulphate of iron were reported to have been obtained at Angahook; but as no market could be found for it, operations were discontinued.

LIMESTONE.

Two samples of limestone of good quality have been received in the Office of Mines. They were said to have been found near Benalla, where it is reported that limestone of a similar quality occurs in quantity.

The Mining Registrar at Stockyard Creek forwarded, amongst other specimens, some of limestone. He says:—"The whole of the specimens have been obtained by myself, with the exception of the limestone ones, obtained near Cape Liptrap, which were brought to me by a friend, who describes that formation as existing to a large extent."

DIAMONDS.

The number reported to have been discovered is as follows:—

Previously—up to 31st December 1870	...	...	...	...	...	75
From 1st January to 31st December 1871	...	...	...	...	...	13
Total	...	...	...	...	...	88

Mr. Warden Alley, of Beechworth, states:—"During the past year twelve diamonds have been reported as found in this division; they were all small, the largest, found at Wooragee, being about $\frac{3}{4}$ of a carat in weight. The localities in which they were found are all situate on the drainage area of Reedy Creek, viz., four at Young's Creek, three at Wooragee, four at the Woolshed, and one at Eldorado."

The Mining Registrar at Beechworth reports as follows:—

"The diamond said to have been discovered is the property of and was found by Mr. E. H. Dunn, in Wooragee Creek, a tributary of Young's Creek. * * * It is of a very good color, and weighs nearly $\frac{3}{4}$ carat.

"Another diamond has come into Mr. Dunn's possession. * * * It was found at Napoleon Flat, Woolshed Creek, by a Chinaman. It is of a very dull color, and under $\frac{1}{2}$ carat in weight. * * * While on this subject I may remark that three other diamonds have been reported to me as found during the present year in this division, viz.:—

"1/3/71.—Diamond, found in Young's Creek, color bright yellow, under $\frac{1}{2}$ carat, octahedron. J. Johnson, finder.

"4/3/71.—Diamond, found in Young's Creek, $\frac{3}{4}$ carat, octahedron, clear color. J. Johnson, finder.

"4/4/71.—Diamond, found in Young's Creek, $\frac{1}{4}$ carat, octahedron, color dull. J. Johnson, finder.

"Memo.—Wooragee Creek falls into Young's Creek, and Young's Creek into the Woolshed."

A diamond of small size and of the purest water was reported to have been found at Sandhurst.

ZIRCONS, SAPPHIRES, GARNETS, TOPAZ, ETC.

Zircons, sapphires, garnets, and topaz, have been found at Beechworth, but none of them were of sufficient size to make them commercially valuable. Near Lilydale zircons, topaz, and almandine garnets have been found.

Fire opals, sapphires, garnets, and other precious stones, have been got from the head of the Woori Yaloak River.

From the bed of a tributary of the Little Yarra River fragments of sapphires have been obtained; and from the Dandenong Ranges fragments and crystals of sapphire, corundum, fibrolite, and topaz.

E. BROUGH SMYTH,
Secretary for Mines.

Office of Mines,
Melbourne, 22nd February 1872.

APPENDICES.

APPENDIX A.

METALS (OTHER THAN GOLD), MINERALS, AND ORES IMPORTED INTO VICTORIA
DURING THE YEAR 1871.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.	Quantity.	Value.	Article.	Quantity.	Value.
		£			£
Arsenic	3 tons	27	Quicksilver	1,381 bottles	17,997
Black Sand	1 cwt.	1	Silver ... ..	... ..	Nil
Coal	161,331 tons	179,681	" Ore	15 lbs.	20
Copper	11 tons 2 cwt.	980	Slates	2,224,050 No.	15,600
" Ore	11 tons 6 cwt.	126	Slate Slabs	136 No.	47
Iron, Pig	3,441 tons 17 cwt.	13,838	Sulphur	395 tons 2 cwt.	5,382
Kerosene Shale	1,094 tons 1 cwt.	5,268	Spelter	11 cwt.	36
Lead	28 tons 13 cwt.	492	Tin	150 tons 12 cwt.	19,300
" Ore	9 tons 8 cwt.	147	Zinc	77 tons 14 cwt.	2,437
" Pig	484 tons 6 cwt.	10,162			
Metal, Yellow	86 tons 9 cwt.	5,311			
Quartz	9 tons 10 cwt.	56			
				Total	276,908

APPENDIX B.

METALS (OTHER THAN GOLD), MINERALS, AND ORES EXPORTED FROM VICTORIA
DURING THE YEAR 1871.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.	Quantity.	Value.	Article.	Quantity.	Value.
		£			£
Antimony	106 tons 10 cwt.	869	Metal, Yellow	90 tons 17 cwt.	5,525
" Ore	1,422 tons 13 cwt.	11,534	Quartz ... ..	... ..	Nil
" Regulus	135 tons 6 cwt.	5,009	Quicksilver	173 bottles	2,185
Arsenic	7 tons 12 cwt.	85	Silver	936 ozs.	209
Black Sand	250 tons	16,027	Slates ... ..	... ..	Nil
Coal	48 tons 15 cwt.	91	Slate Slabs	2 No.	10
Coke and Fuel	26 tons 11 cwt.	122	Spelter	128 tons 6 cwt.	2,268
Copper*	7 tons 4 cwt.	928	Steel	33 tons 16 cwt.	1,453
" Ore	16 cwt.	10	Sulphur	39 tons 7 cwt.	642
Iron, Pig	139 tons 13 cwt.	913	Tin	22 tons 4 cwt.	3,073
Lead	15 tons 10 cwt.	364	Zinc	20 tons 7 cwt.	987
" Pig ... ..	... ..	Nil			
Lime	60 bushels	8			
				Total	52,312

* Of this quantity, 8 cwt. was entered at the Customs as "auriferous," which accounts for the higher average value than in the previous year.

NOTE.—The figures in these tables are extracted from the returns published by the Honorable the Commissioner of Trade and Customs. The statements include only raw materials. Thus pig-iron is included, but not bars, rods, plates, or castings; lead and lead ore, but not piping or sheet lead; and so in like manner the others. The returns published by the Customs Department necessarily include all.

The quantities exported include metals, &c., not the produce of Victoria.

APPENDIX C.

RETURN SHOWING THE QUANTITY AND VALUE OF KEROSENE OIL IMPORTED
INTO AND EXPORTED FROM THIS COLONY DURING THE YEAR 1871.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Kerosene Oil.	IMPORTED.		EXPORTED.	
	Quantity.	Value.	Quantity.	Value.
		£		£
Duty paid ex Ship	64,286 gallons	7,306	379,204 gallons	44,027
Warehoused	179,015 cases	156,168		
Free	77 gallons	11		
	Total	163,485		

APPENDIX D.

LABORATORY REPORT.

SOMEWHAT over one hundred analyses, examinations, and assays have been made during the year. The majority, however, as in the report of last year, have been analyses and examinations of specimens and samples from mining districts, with the view of ascertaining their economic value, and are not of general interest.

ANTIMONY.

The antimony ores from the Upper Yarra mines have attracted attention during the past year. The chief yield has been of oxide, comparatively only small quantities of sulphide having been obtained. The oxide is impregnated with limonite to such an extent that much of the ore might easily pass for the brown iron ore so commonly found in quartz reefs above water level. The best ore appears to be found coating the cracks and fissures of a quartz vein, the lode having been followed from the surface down to a depth of about 140 feet. The slate (silurian) on both sides of the vein contains cubes of iron and copper pyrites, and the quartz is more or less impregnated with arsenical pyrites, containing a little silver and gold. I have heard of no sulphide of antimony being found in this part of the mine, though the workings are considerably below "water level." The assay of this brown ore varies from 20 to 60 per cent. when freed from quartz.

Some samples of antimony, both as oxide and sulphide, have been received from Blackwood; the highest assays were 60 per cent. The oxide from this district has the general character and appearance of the antimony ochre from Heatbottle.

BISMUTH.

No samples of metallic bismuth have been received this year, but some small rounded grains of the mixed oxide and carbonate have been found associated with some black iron sand from near Beechworth.

COBALT.

A deposit of earth-cobalt has been discovered by Mr. Brough Smyth, the Secretary for Mines, near Cape Patterson; judging from the samples received it is worth investigation. A small sample has also been received from near the Thomson River copper mine, which contained a large percentage of cobalt. Owing, however, to the variability of the composition of these ores a larger quantity than a hand specimen should be tried before any further expense is gone to in opening up the deposits. These ores had the same character as the ores found some years since near Yea; color, blue-black to brown; hardness, from 1 to 4; the portions containing the most cobalt are soft, and feel greasy to the touch.

COPPER.

Specimens of copper have been received from Gippsland, chiefly from the valley of the Thomson River. They consisted of oxide, blue and green carbonates and sulphides. Some of the oxide is quite pure and crystalline; it coats the other varieties, and in some specimens occurred as a moss-like coating on quartz.

GOLD.

Several assays of alluvial and reef gold have been made, but have not been of any general interest. The alluvial gold average has been 22.37 carats; the reef gold gives only an average of 19.2 carats. Some of the reef gold contained a good deal of copper, which probably did not originally belong to the gold, but was contained as metallic copper in the quartz.

An alloy of gold and lead, said to have been found in alluvial drift at Maryborough, was assayed and found to contain 71 per cent. of gold; the alloy was very brittle and had the appearance of having been melted. It has probably been accidentally formed by some miner.

Amongst the many assays for gold (forty), two are of interest as showing the occurrence of gold in new localities, one near Hamilton and the other at Bacchus Marsh; a sample of quartz from the latter place, taken from a vein near the Comadai Creek, gave 2 ozs. 12 dwts. 6 grs. of gold per ton. The other assays are only of interest to the senders and the inhabitants of the localities from which they come; a large proportion have been of pyrites and tailings, which are attracting more attention than formerly, several public companies having erected machinery for the purpose of extracting the gold contained in them which was formerly lost.

IRON.

The search for tin in the river and creek beds throughout the colony has caused a number of samples of black sand to be forwarded for examination, and, though often found to contain tin, also shows the great distribution of titaniferous iron sand in Victoria and the neighboring colonies. Add to this the large areas covered with the pea-like grains of magnetic and brown iron ore, the large deposit of massive brown ironstone at Western Port, the micaceous iron in the northern parts of the colony, and we have an immense quantity of good iron ore, which under favorable circumstances would prove remunerative to the smelter.

In America and Canada the titaniferous and magnetic iron sands are now being economically treated in bloomery furnaces, charcoal being used as fuel. The process seems to be most economically carried on at the New Russia forges in the United States; the ore is nearly pure magnetite, yielding 66 per cent. of iron. The fuel used in these furnaces amounts to about 300 bushels of charcoal to the ton of blooms, the bushel of charcoal weighing from 16 to 18 pounds. In Canada, at the Moisie Works, an ore is used closely resembling our titaniferous sands. There, as at the New Russia furnaces, charcoal is used as the fuel. The iron produced from this titaniferous sand is said to possess a greater tensile strength than that of Low Moor iron, and to work easily both hot and cold. It is employed in the manufacture of railway axles in Canada.

The cost of producing iron here should not be much, if at all, greater than it is in Canada. The charcoal used in the furnaces costs about eight cents a bushel, while here suitable charcoal may be obtained at about one-half that price. This difference should compensate for any excess in the price of labor.

The titaniferous ores vary very much in the percentage of the oxides of iron and the oxide of titanium, but they could be readily separated from silicious sands and any pyrites grains they may contain by a simple washing process, and they would then give a good ore containing neither sulphur nor phosphorus. Much valuable information may be obtained on this subject from Dr. T. Sterry Hunt's reports on the geology of Canada.

Most of the pea-like magnetic oxide of iron found on the basalt plains, and in nearly all the newer tertiary formations, have too large a percentage of silica to be of much value in the manufacture of iron or steel by a direct method like the bloomery furnace, as is shown by the following analyses:—

Magnetic oxide of iron found near Gisborne on basaltic rock—

Magnetic oxide of iron	...	...	...	...	...	86.19
Peroxide of iron	...	...	...	...	...	2.07
Magnesia and lime	...	...	...	...	...	traces
Silica	...	...	...	...	...	10.10
Water	...	...	...	...	...	1.64
						<hr/> 100.00

A sample from Lockwood, near Sandhurst, gave—

Magnetic oxide of iron	...	...	...	...	...	77.00
Silica	...	...	...	...	...	22.50
Water	...	...	...	...	...	1.19
						<hr/> 100.69

A sample from Kangaroo Flat, near Sandhurst, gave—

Magnetic oxide of iron	...	...	...	...	...	63.50
Alumina	...	...	...	...	...	traces
Lime	...	...	...	...	...	1.20
Silica	...	...	...	...	...	32.48
Water	...	...	...	...	...	2.60
						<hr/> 99.78

A sample from Flemington tertiary ironstone gravels:—

Magnetic oxide of iron	...	...	...	...	77.3
Silica	...	...	...	...	17.81
Water	...	...	...	...	0.38
Lime and magnesia (not determined)	...	...	...	...	—
					<hr/> 95.49

LEAD.

Further analyses have been made of ore from the localities mentioned in last year's report as yielding lead ore in Gippsland, namely, Buchan and Corner Inlet. The lodes of the former place have been opened up, and a company is now formed for mining and working the ore.

Four classes of ore seem to be found in the lode:—

1. Galena, with sulphide of antimony and iron pyrites intimately mixed together: upon assay, this ore yields 60 per cent. of lead and 17 ozs. 8 dwts. 3 grs. of silver per ton of ore. The antimony is variable.
2. Fine-grained mixture of galena and sulphide of antimony, near the composition of Bleisohweif, but with the antimony variable: on assay, it gives 66.6 per cent. of lead and 21 ozs. 15 dwts. 11 grs. of silver per ton of ore.
3. Coarse galena, containing a little pyrites and seams of calcite: upon assay, it yields 65 per cent. of lead and 7 ozs. 12 dwts. 11 grs. of silver per ton of ore.
4. Intimate mixture of fine-grained galena and iron pyrites, only traces of antimony: upon assay, it gave 25 per cent. of lead and 12 ozs. 3 dwts. 1 gr. of silver per ton.

The pyrites separated from the galena gave, upon assay, 6 dwts. 12 grs. of silver per ton and a trace of gold. Some galena from near the Snowy River, Gippsland, gave 76 per cent. of lead and 12 ozs. of silver per ton.

MANGANESE.

Some massive samples of manganese ore, containing about 40 per cent. of manganese oxide, have been received from near Bairnsdale, Gippsland.

OTHER ROCKS AND MINERALS.

Halotrichite, from near Mudgee, New South Wales, crystallized in needles, and massive, color white—

Alumina	...	...	...	...	...	11.67
Magnesia	...	...	...	...	...	4.41
Sulphuric acid	...	...	...	...	...	39.88
Cobalt	...	...	...	...	...	traces
Iron	...	...	...	...	...	"
Soda	...	...	...	...	...	"
Water	...	...	...	...	...	42.24
Silica	...	...	...	...	...	0.20
						<hr/> 98.40

Dense flint-like rock, yellowish color, 7 hardness, occurs in masses in the granite near Beechworth—

Silica	...	...	...	...	...	98.10
Alumina	...	...	...	...	...	1.77
						<hr/> 99.87

Fibrolite, from Gippsland, massive—

Silica	...	...	...	...	...	36.90
Alumina	...	...	...	...	...	60.73
Lime	...	...	...	...	...	0.63
Magnesia	...	...	...	...	...	0.33
Water	...	...	...	...	...	1.50
						<hr/> 100.09

Infusorial earth, from near Talbot, occurs in quantity, and is of considerable value—

Silica	...	...	...	...	...	83.88
Alumina	...	...	...	...	...	7.41
Lime	...	...	...	...	...	1.24
Magnesia	...	...	...	...	...	0.75
Water	...	...	...	...	...	6.23
						<hr/> 99.51

Limestone, from Major Plains, may be of value in the manufacture of cements—

Carbonate of lime...	...	...	...	...	...	56.99
Carbonate of magnesia	...	...	...	...	...	15.69
Carbonate of iron	...	...	...	...	...	8.87
Silica and clayey matter	...	...	...	...	...	15.95
Water	...	...	...	...	...	2.54
						<hr/> 100.04

Fire-clay, from near Nunawading.—Bricks of this clay stand a high temperature without softening or cracking. The highest temperature of the assay furnace was not sufficient to round the thin edges. A sample was tried at an iron foundry in Melbourne, and is reported to have stood quite as well as imported fire-bricks.

The composition of the clay is nearly—

Silica	...	...	...	...	...	67.2
Alumina	...	...	...	...	...	29.0
Water	...	...	...	...	...	4.0
						<hr/> 100.2

Analyses have been made to compare the composition of the Footscray basalt and that from Malmsbury.

The former is of a dark-blue color, contains patches of calcite, but no zeolites; 26 per cent. of the finely pulverized rock is soluble in hydrochloric acid. 100 parts of this soluble portion contain—

Silica	...	...	...	...	...	25.16
Alumina	...	...	...	...	...	21.12
Oxide of iron *	...	...	...	...	...	29.20
Lime	...	...	...	...	...	trace
Magnesia	...	...	...	...	...	16.23
Potash and soda	...	...	...	...	...	6.66
Water	...	...	...	...	...	1.63
						<hr/> 100.00

* The iron is estimated as magnetic oxide.

The Malmsbury basalt is greyish-blue, open texture, and more easily crushed than the Footscray rock. Cavities in the rock contain carbonates of iron and lime, with zeolites, especially chabazite; 24·5 per cent. of the rock is soluble in hydrochloric acid. Upon analysis this portion gives—

Silica	...	...	...	...	...	...	33·93
Alumina	...	...	...	...	...	...	51·29
Oxides of iron	...	...	...	...	...	...	5·97
Lime	...	...	...	...	...	...	traces
Magnesia	...	...	...	...	...	...	7·59
Potash and Soda	...	...	...	...	...	...	1·22
Water	...	...	...	...	...	...	100·00

These analyses show a large difference in the amounts of silica, lime, and magnesia; but further analytical and microscopical examinations will have to be made before any absolute conclusion is arrived at as to the minerals forming soluble portions of these basalts. In the Malmsbury basalt or dolerite, the felspar is probably labradorite. The Footscray has the character of anamesite. They both contain grains of magnetic oxide of iron.

With the view of ascertaining the nature of the so-called lava streaks found cutting the silurian shales and sandstones at Sandhurst, three analyses have been made, which prove that they are more or less decomposed dyke stones, probably basaltic. The first was a soft, mottled, grey clay rock, 51·78 per cent. soluble in hydrochloric acid, consisting of—

Water	...	...	...	...	...	...	13·81
Silica	...	...	...	...	...	...	8·81
Alumina	...	...	...	...	...	...	18·01
Peroxide of iron	...	...	...	...	...	...	8·80
Lime	...	...	...	...	...	...	2·34
Magnesia	...	...	...	...	...	...	trace
Potash	...	...	...	...	...	...	0·90
Soda	...	...	...	...	...	...	trace
Phosphoric acid	...	...	...	...	...	...	0·40
Soluble sulphates and chlorides	...	...	...	...	...	...	traces
							53·07

The excess in the analysis is probably due to the oxides of iron being determined as peroxides. They occur as protoxide, peroxide, and magnetic oxide. The insoluble 48·22 per cent. consists of—

Silica	...	...	...	...	...	...	33·75
Alumina	...	...	...	...	...	...	13·77
Lime	...	...	...	...	...	...	0·70
							48·22

The second sample was a soft clayey rock of grey color, less mottled than the first; 59·43 per cent. was soluble in hydrochloric acid, consisting of—

Water	...	...	...	...	...	...	12·91
Silica	...	...	...	...	...	...	10·46
Alumina	...	...	...	...	...	...	21·93
Peroxide of iron	...	...	...	...	...	...	6·91
Lime	...	...	...	...	...	...	4·48
Magnesia	...	...	...	...	...	...	0·31
Potash	...	...	...	...	...	...	1·41
Soda	...	...	...	...	...	...	1·02
Phosphoric acid	...	...	...	...	...	...	0·64
Soluble sulphates and chlorides	...	...	...	...	...	...	traces
							60·07

The insoluble 40·57 per cent. consisted of—

Silica	...	...	...	...	...	...	28·41
Alumina	...	...	...	...	...	...	9·16
Lime	...	...	...	...	...	...	2·09
Magnesia	...	...	...	...	...	...	trace
							39·66

The third was a yellowish clayey rock, giving 13·16 per cent. soluble in hydrochloric acid, and 86·84 per cent. insoluble. This rock contained angular fragments of quartz, and from its appearance I should judge that it was a deposit washed from some clayey rocks, like the above, and deposited in a fissure.

The soluble portion contains—

Water	...	...	...	...	...	...	2·12
Silica	...	...	...	...	...	...	3·26
Alumina	...	...	...	...	...	...	5·01
Peroxide of iron	...	...	...	...	...	...	1·30
Lime	...	...	...	...	...	...	1·01
Magnesia	...	...	...	...	...	...	trace
Alkalies (by loss)	...	...	...	...	...	...	0·46
							13·16

The insoluble portion contains—

Water	...	...	...	...	...	...	7·00
Silica	...	...	...	...	...	...	55·90
Alumina	...	...	...	...	...	...	23·93
Lime	...	...	...	...	...	...	trace
							86·83

The first of the three contained irregular pieces of olivine, of a greenish-yellow color, and black crystals of augite.

The second contained a few crystalline grains of titaniferous iron, also grains of magnetic oxide of iron. These analyses, though of rocks resembling basalts, vary in composition from the decomposed basalt of Phillip Island, and are probably more allied to the basalt dykes cutting the coal rocks of Cape Patterson.

An analysis of the slate through which the "lava streaks" pass gives 27·11 per cent. soluble in hydrochloric acid consisting of—

Water	...	...	...	...	...	...	4·45
Silica	...	...	...	...	...	...	6·51
Alumina	...	...	...	...	...	...	10·20
Protoxide of iron	...	...	...	...	...	...	4·80
Lime	...	...	...	...	...	...	0·31
Magnesia	...	...	...	...	...	...	0·43
Alkalies (by loss)	...	...	...	...	...	...	0·41
							27·11

The insoluble portion gave—

Silica	55.62
Alumina	9.38
Protoxide of iron	6.24
Lime	0.02
Magnesia	0.81
Alkalies (by loss)	0.82
	<hr/>
	72.89

The slate was dense in texture, of a dark-blue color, and was traversed by a thin vein of quartz containing auriferous pyrites. The alkalies in both soluble and insoluble portions were chiefly soda.

A sample of granite from the same vicinity was also examined, and found to consist of orthoclase, felspar, common white mica, and quartz; the orthoclase was largely in excess of the other constituents. In the granite there were stelliform markings of a brown color, due to the decomposition of some ferruginous mineral.

A sample of coal from the seam lately discovered near Kilcunda gives—

	I.	II.
Water	6.59	7.26
Volatile hydro-carbon	32.25	29.24
Fixed carbon	56.38	59.13
Ash, grey	4.78	4.37
	<hr/>	<hr/>
	100.00	100.00

The coal gives no coke, and is not unlike the non-caking coal from Corinella, on the Bass River.

The following are some of the most interesting minerals determined during the year:—

Sapphires small, but of good color	... ..	Dandenong Ranges.
Fibrolite	... ..	Northern Gippsland and Dandenong Ranges.
Topaz	... ..	Dandenong Ranges.
Corundum	... ..	Dandenong Ranges.
Zircons—perfect crystals	... ..	Lilydale.
Almandine garnets	... ..	Lilydale.
Muscovite	... ..	Daylesford.
Selenite	... ..	Daylesford.
Chrome iron crystals	... ..	Stockyard Creek.
Lithomarge	... ..	Beechworth.
Brown spar in quartz	... ..	Sandhurst.
Brown spar and bitter spar, with calcite, coating quartz, and containing gold and pyrites	... ..	North Gippsland mine, Walhalla.
Massive arseniate of iron	... ..	Gippsland.
Sulphur	... ..	Wood's Point.

WATERS.

A small quantity of a spring-water from near Daylesford was examined and found to contain sulphuretted hydrogen and iron salts. The bottom of the spring was said to be coated with iron pyrites, a sample of which was also received, and closely resembled the recent pyrites of tin found in the tertiary formations. A larger sample of water was sent for, but, when received, was found to contain no sulphuretted hydrogen and only a small quantity of iron in combination with carbonic acid. This change will require further investigation, as the subject of the deposition of pyrites and ferruginous waters is of much interest.

Some experiments have been made with the view of finding some means of clearing the muddy waters of reservoirs. The purest waters are, as a rule, those in which mud and organic matter stays longest in suspension. Water from the Expedition Pass Reservoir has stood in a bottle in the laboratory for more than six months without depositing the clay held in suspension. The soluble matter is chiefly chloride and carbonate of sodium, and is present in only small quantity. Water from the Maryborough Reservoir has stood for three months with like results. Both waters contain more clayey than organic matter, and are rendered clear by an addition of chloride of calcium. One part of this salt in 1000 of water clears it in less than one hour; 1 part in 2500 of water in five hours; 1 part in 5000 in six hours; 1 part in 10,000 in twenty-four hours. When, however, the water contains more organic matter than inorganic or clayey matter in suspension, as in the Yan Yean, the calcium salt does not act so readily, but may be aided by an addition of lime; as little as two grains of quick lime will clear a gallon of Yan Yean water in twelve hours. Three or four grains of alum or chloride of aluminum will answer the same purpose; but there are many objections to the use of alumina salts.

J. COSMO NEWBERY, B.Sc., Analyst.

1874.
—
VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1873.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

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MEMORANDUM.

The Mineral Statistics for 1873¹ have been prepared with great care ; and miners and those who have invested capital in mining adventures will find in the Report and in the Tables much useful information. The facts that have been collected relative to the results of mining operations during the past and preceding years will guide them in extending their works, and in undertaking new explorations.

The yield of gold from quartz obtained at great depths gives to our auriferous resources a permanence which promises well for the future.

ANGUS MACKAY,
Minister of Mines.

Office of Mines,
Melbourne, 9th February 1874.

MINERAL STATISTICS, 1873.

THE diligence of the Officers of the Department in collecting information respecting the produce of gold, and the means and appliances in use for its extraction, is to be commended. Every one connected with the Department takes a lively interest in the work of collecting statistics ; and all to whom the Department has to apply for help—managers of banks, gold buyers, and others—render it cheerfully. There are, however, still difficulties in the way of procuring returns from some of the smaller quartz crushing mills.

The tables and general reports, and Mr. Cosmo Newbery's report of the results of examinations and analyses made in the laboratory, in which many new facts are given in connection with the extraction and treatment of metals and minerals other than gold, are encouraging.

GOLD.

According to returns obtained by the Department, from various sources, it is possible to make an estimate of the total quantity of gold raised during the years 1871, 1872, and 1873.

The results for the three years are as follow :—

	1871.			1872.			1873.		
	ozs.	dwt.	grs.	ozs.	dwt.	grs.	ozs.	dwt.	grs.
Exported, according to returns furnished by the Honorable the Commissioner of Trade and Customs	1,355,477	3	0	1,160,554	19	0	1,115,987	14	0
Received at the Melbourne Branch of the Royal Mint ... ..	...			121,965	17	0	104,891	6	0
Raised, according to estimates made by the Mining Registrars	1,368,942	9	4	1,331,377	18	0	1,170,397	12	0
Purchased by the several banks, from returns made by the managers	1,290,844	18	1	1,218,094	9	0	1,162,492	14	0

As compared with the figures given for 1872, there is a falling off in 1873 in the quantity of gold exported and minted, equal to 61,641 oz. 16 dwt. ; in the quantity raised, according to estimates made by the Mining Registrars, a decrease of 160,980 oz. 6 dwt. ; and in the quantity purchased by the several banks, a difference in favor of 1872 of 55,601 oz. 15 dwt.

The tables, and the notes which accompany them, give full information respecting the yield of gold from certain parcels of vein-quartz, mullock, pyrites, &c., which were crushed and treated during the year 1873. They do not represent the total yields from vein-stuffs, because it is impossible at present to get returns from all the mills.

Yield of gold
from quartz, &c.

In 1873 the quantities treated and the gold obtained were as follow :—

	Crushed or Treated.		Produce.			Average per Ton.		
	Tons	cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.
Quartz crushed	991,673	19	567,214	7	2	0	11	10·55
Quartz tailings, mullock, &c.	25,387	0	2,880	0	5	0	2	6·45
Pyrites, blanketings, &c.	5,568	0	15,887	17	8	2	17	1·64

Comparing these figures with the returns for 1872, it is seen that there is an increase in the quantity of quartz crushed, and a large decrease in the number of tons of quartz tailings, mullock, &c., put through the mills.

It is much to be regretted that some of the mill-owners neglect to furnish returns of their operations.

The total quantity of gold obtained in 1873, according to the returns of mill-owners who keep records, was 585,982 ozs. 4 dwts. 15 grs. ; but the quantity obtained altogether, as the result of vein-mining, was certainly not less than 694,879 ozs. 10 dwts.

There is a considerable falling off in the quantity of quartz tailings, mullock, &c., treated during the past four years. This is owing probably to the fact, that the miners and machine-owners can be more profitably employed in crushing and treating quartz got directly from the mines than in putting waste products through the mills. In 1870 the quantity of tailings, &c., treated in the Sandhurst district, amounted to 101,363 tons, which yielded an average of 2 dwts. 21·75 grs. per ton. In 1873 the quantity treated was 4,296 tons, with an average yield of only 1 dwt. 22·37 grs. per ton. On the other hand, there is a satisfactory increase in the quantities of vein-quartz crushed in this district. In 1870 there were 211,542 tons of quartz crushed in the Sandhurst district, which yielded gold at the rate of 11 dwts. 13·83 grs. per ton ; whilst in 1873, the quantity of stone treated was 317,429 tons, with an average yield of 15 dwts. 13·86 grs. per ton.

Quartz crushed.

The Department has obtained from the Mining Registrars and Mining Surveyors information respecting the yield of gold from certain parcels of quartz crushed since the publication of these statistics was commenced ; and though the record is necessarily imperfect, in consequence of the impossibility of procuring returns from many of the smaller machines, it is yet of great value. Up to the 31st December 1873, the returns embrace the results of the crushing and treating of 10,474,568 tons 17 cwt. of quartz, from which the total yield of gold was 5,874,419 ozs. 8 dwts. 2 grs., and the average per ton 11 dwts. 5·19 grs.

The average yields from quartz in the several districts in 1873, were as follow :—

					ozs.	dwt.	grs.
Ballarat ... ..	...	...	...	...	0	5	14·68
Beechworth ... ..	...	...	...	...	0	9	15·42
Sandhurst ... ..	...	...	...	...	0	15	13·86
Maryborough ... ..	...	...	...	...	0	10	9·20
Castlemaine ... ..	...	...	...	...	0	9	9·44
Ararat ... ..	...	...	...	...	0	18	20·97
Gippsland ... ..	...	...	...	...	1	7	16·28

The very high average yield in Gippsland, maintained uninterruptedly for many years, is worthy of note.

In the Mineral Statistics 1872, a table is given showing the average yields from quartz, in all the mining districts, for the preceding ten years.

Tailings, mullock, &c.

The returns made to the department for the ten years ending 31st December 1873 give the results of the treatment of 1,593,594 tons of quartz tailings, &c. The

total yield of gold was 292,250 ozs. 12 dwts. 16 grs., or an average of 3 dwts. 16·02 grs. per ton. The average yield from waste products of this description will probably decrease from year to year. The mills are now of the best designs, the work of extracting the gold is, as a rule, admirably conducted on all the large goldfields, and the tailings that are cast aside are consequently of little value, as compared with the tailings that left the mills in former years when the machinery was defective and the processes imperfect.

The aggregate amount of pyrites, blanketings, &c., operated on during the years 1869–73 was 18,719 tons 9 cwt., which yielded 51,609 ozs. 6 dwts. 1 gr. of gold, showing an average per ton of 2 ozs. 15 dwts. 3·35 grs. Pyrites, blanketings, &c.

The Board appointed to investigate and report on the methods of treating pyrites and pyritous vein-stuff has not yet concluded its labours ; but enquiries have been made respecting the modes of treatment on all the principal goldfields, and a valuable accession to our knowledge of this class of auriferous minerals may be surely anticipated.

During the year ending the 31st December 1873 the department received returns showing the results of the puddling and sluicing of 760,669 tons of washdirt (alluvial). The quantity of gold got was 61,505 ozs. 2 dwts. 10 grs., or an average of 1 dwt. 14·81 grs. per ton. The returns from the 31st March 1872 up to the end of the year 1873 show that 2,314,122 tons of washdirt have yielded an average of 1 dwt. 9·19 grs. per ton. Washdirt.

The large quantity of 308,991 tons of washdirt was treated in the district of Castlemaine in the year 1873 with the very low yield of 14·38 grs. per ton. Of this 200,970 tons were sluiced in the Fryers Creek division of this district.

In the districts of Castlemaine and Maryborough large quantities of auriferous cemented gravel are crushed and treated. The total quantity operated on in the year 1873 was 76,051 tons, with an average yield of 3 dwts. 22·21 grs. per ton. Cement.

From 1872 to 1873 inclusive the records of the department show that 145,351 tons of cement have yielded 27,747 ozs. 4 dwts. 17 grs. of gold, or an average of 3 dwts. 19·63 grs. per ton.

There is an enormous quantity of cement yet untouched in the several mining districts which should afford profitable employment to miners who can command the use of efficient machinery.

As compared with the figures for 1872 there is a decrease of 2602 in the mean number of miners employed. Number of miners.

The number of miners employed in each mining district during the last quarter of the year 1872 and the last quarter of 1873 was as follows :—

			1872.			1873.		
			Alluvial Miners.	Quartz Miners.	Total.	Alluvial Miners.	Quartz Miners.	Total.
Ballarat ...	...	...	9,323	3,262	12,585	8,220	3,168	11,388
Beechworth ...	...	...	5,988	1,477	7,465	5,557	1,371	6,928
Sandhurst ...	...	...	3,066	5,130	8,196	2,899	5,078	7,977
Maryborough ...	...	...	8,509	2,054	10,563	8,484	1,880	10,364
Castlemaine ...	...	...	5,247	3,098	8,345	4,665	3,141	7,806
Ararat ...	...	...	2,021	945	2,966	1,996	1,167	3,163
Gippsland ...	...	...	1,987	858	2,845	2,001	968	2,969
			36,141	16,824	52,965	33,822	16,773	50,595

It will be observed that there is a slight increase in the numbers in the districts of Ararat and Gippsland : in all the other districts there is a falling off.

In the last quarter of 1872 there were 14,071 Chinese miners engaged in alluvial mining and 87 in quartz mining, and in the last quarter of 1873 the numbers were, for each kind of mining respectively, 13,413 and 115.

In the Beechworth district the Chinese alluvial miners outnumber the Europeans, and in the Castlemaine district the numbers are nearly equal.

Average earnings
of the miners.

The quantity of gold exported and the quantity received at the Melbourne branch of the Royal Mint for the year 1873, divided amongst the mean number of miners employed respectively in alluvial mining and quartz mining, show the average earnings per man to be—for alluvial miners £59 15 9½, and for quartz miners £164 15s. 9¾d. In 1872 the averages were—for alluvial miners £65 0s. 6¾d., and for quartz miners £159 0s. 6¼d.

Dividing the quantities of gold exported and minted amongst the mean number of miners employed in 1873 the average obtained is £93 16s. 2·62d. per man.

Machinery em-
ployed.

The number of steam-engines used in alluvial mining and quartz mining in each mining district in 1873 was as follows :—

1872.						
		ALLUVIAL MINING.		QUARTZ MINING.		Stamp-heads (crushing Quartz or other Vein-stuff).
		Steam-engines employed in Winding, Pumping, &c.		Steam-engines employed in Winding, Pumping, &c.		
		Number.	Aggregate Horse-power.	Number.	Aggregate horse-power.	
Ballarat ...	...	210	6,262	136	3,317	1,235
Beechworth	...	43	702	73	847	1,069
Sandhurst	...	20	298	224	4,014	1,412
Maryborough	...	74	2,144	105	2,040	748
Castlemaine	...	18	309	160	3,087	1,186
Ararat ...	...	13	175	42	1,027	410
Gippsland	...	1	6	42	786	500
		379	9,896	782	15,118	6,560

1873.						
		ALLUVIAL MINING.		QUARTZ MINING.		Stamp-heads (crushing Quartz or other Vein-stuff).
		Steam-engines employed in Winding, Pumping, &c.		Steam-engines employed in Winding, Pumping, &c.		
		Number.	Aggregate horse-power.	Number.	Aggregate horse-power.	
Ballarat ...	...	197	5,929	131	3,385	1,194
Beechworth	...	44	711	65	859	1,024
Sandhurst	...	19	290	235	4,133	1,423
Maryborough	...	71	2,087	109	2,017	830
Castlemaine	...	14	301	165	3,296	1,141
Ararat ...	...	15	241	38	1,032	397
Gippsland	...	2	20	46	799	492
		362	9,579	789	15,521	6,501

Of engines used in crushing quartz and driven by other power than steam there were in 1872 altogether 61, and in 1873, 77. Water, as a motive power, is used extensively in the districts of Beechworth and Gippsland.

According to estimates furnished by the mining registrars and surveyors the approximate value of the machinery of all kinds in use on the goldfields was on the 31st December last as follows :—

District.					Approximate Value of all Mining Plant.
					£
Ballarat ...	...	...	...	...	494,668
Beechworth	...	...	...	...	256,295
Sandhurst	...	...	...	...	503,398
Maryborough	...	...	...	...	310,895
Castlemaine	...	...	...	...	292,418
Ararat ...	...	...	...	...	122,611
Gippsland	...	...	...	...	150,903
Total					2,131,188

The estimated value of all the mining plant on the 31st December 1872 was £2,098,574.

The total area of the auriferous alluvial and quartz ground actually opened up is 1050½ square miles.

The number of distinct quartz reefs known to be auriferous is 3,324. (See note at the end of table 18.)

The depths of the deepest shafts in the colony, designed for the exploration and working of quartz veins, are as follows :—

Ballarat district—one exceeding 700, three exceeding 800 feet, one exceeding 900 feet, and one—the shaft of the New North Clunes Company—as deep as 1012 feet. In the Beechworth district two as deep as 400 feet ; but in places where tunnels are driven into the hills the reefs are cut in some places at great depths below the outcrop. In the Sandhurst district one shaft is 840 in depth and one 824 feet. In the Maryborough district one shaft is 450 feet, one 520 feet, and one 637 feet. In the Castlemaine district one shaft is 570 feet and one 580 feet. In the Pleasant Creek division of the Ararat district there is one shaft 1305 feet in depth, one 1148 feet, and one 1051 feet. In Gippsland the reef of the Good Hope at Crooked River is worked at a depth of 700 feet.

The deepest shafts are being sunk to greater depths, and the results of deep quartz mining are everywhere such as to give confidence to capitalists.

A large number of shafts exceed 400 feet in depth.

The total area held as “claims” under the bye-laws of the several Mining Boards on the 31st December 1873 was 69,316a. 1r. 14p., of which 6,921a. 2r. 30p. were not being worked, the holders protecting the same by obtaining certificates. The total area held under leases from the Crown at the same period was 31,569a. 2r. 34p.

Altogether there have been issued since the Leasing Regulations came into force 8947 leases for an aggregate area of 165,913a. 2r. 4p. Many have been declared void for the non-fulfilment of the covenants, and others have been surrendered, or have lapsed, owing to the expiration of the terms for which they were granted.

As compared with 1872, the aggregate area held by miners under the bye-laws and under lease is less by 10,255a. 1r. 20½p. than in 1873.

The Mining Surveyors and Registrars estimate the value of the lands held under the bye-laws and under leases from the Crown in the several mining districts at £12,431,241. In 1872 the estimated value was £11,820,139.

Labor employed
on leased lands.

There were 2380 leases in force on the 31st December 1873, and returns have been received relating to 1997 of these, showing the number of men actually employed in mining on the areas demised. The following table contains information respecting the leases in each district :—

Districts.			Number of Leases.	Area.			Number of Men as per covenant.	Number of Men actually employed as per returns.
				A.	R.	P.		
Ballarat	...	...	88	2,974	2	21	1,607	1,665
Beechworth	...	...	204	3,330	0	29	1,790	1,082
Sandhurst	...	...	635	5,265	1	33	3,413	2,875
Maryborough	...	...	371	7,014	1	28	3,377	1,459
Castlemaine	...	...	420	4,813	2	16	2,468	1,800
Ararat	...	...	153	2,178	0	26	775	989
Gippsland	...	...	126	2,008	2	21	895	535
Total	...	...	1,997	27,585	0	14	14,325	10,405

Revenue derived
from the gold-
fields.

The revenue derived directly from the goldfields and mineral districts during the year 1873, exclusive of fees, fines, and forfeitures, was as follows :—

				£	s.	d.
Miners' Rights	...	...	...	8,199	10	0
Business Licenses	...	...	...	1,702	0	0
Rents for Leases of Auriferous and Mineral Lands	...	...	...	15,910	16	0
Water-right and Searching Licenses	...	...	...	1,013	5	0
Total	...	...	...	26,825	11	0

By the Act 36 Vict., No. 446, entitled *An Act to amend the Mining Statute* 1865, the rents of lands held under gold mining leases was reduced from One pound sterling per acre per annum to Ten shillings per acre per annum. The Act came into operation on the 17th December 1872.

Water-rights.

There were 171 water-right licenses in force on the 31st December 1873. The area of the races held under the licenses was 1279a. 0r. 5p. ; the length of the races was 383 miles $36\frac{57}{100}$ chains ; the maximum quantity of water diverted per diem was 184,310,605 gallons ; the aggregate area of the reservoirs constructed was 95a. 2r. 13p., and the capacity of the same, 209,571,355 gallons.

During the year 1873 ten water-right licenses were issued, under which the licensees were authorized to divert 7,872,000 gallons per diem.

The aggregate length of all the water-races used for mining purposes was, on the 31st December 1873, 1928 miles 14 chains, and the approximate cost of constructing the same was £244,246, being at the rate of £126 13s. 5¼d. per mile.

Information respecting the water-rights issued and the water-races constructed in the several districts and divisions of the colony is given in Tables 41, 42, 43, and 44.

Cost of timber.

In Table No. 54 is shown the kinds and quantities of timber used for mining purposes. The mining registrars and surveyors estimate that the sums paid for timber during the year ending the 31st December 1873 amounted to £480,691 10s.

Cost of crushing.

The cost of crushing quartz and cement varied from two shillings to twenty-five shillings per ton. The lowest price paid was in the Castlemaine district, and the highest price in the Beechworth district. In the Gippsland district the price per ton varies from ten shillings to twenty shillings. With efficient machinery, similar to that in use in the districts of Sandhurst, Ballarat, and Castlemaine, the reefs of Gippsland

would produce an enormous amount of gold, and many reefs now lying neglected would give profitable employment to a great number of miners.

The wages paid for labor of every description in all the mining districts and divisions of the colony are given in detail in Table No. 52. Wages paid for labor.

The prices paid for all materials used in mining operations in the more important mining centres are recorded in Table No. 53, and particulars relating to the weight and cost of stamp-heads and shanks or lifters; the heights the stamp-heads fall; the number of strokes per minute; the quantity of quartz crushed per head per diem; the number of holes per square inch in the gratings; the quantity of water used per stamp-head; and the quantities of mercury used and lost per stamp-head are shown in Table No. 55. Prices of materials used in mining, &c.

In other tables information is given relative to the quantities of gunpowder stored in the magazines on the goldfields and the quantities taken out; and the moneys received and disbursed under the several regulations relating to the leasing of auriferous and mineral lands. Gunpowder used, &c.

There were 385 mining companies registered during the year 1873; the number of shares was 6,911,424, and the nominal capital £5,059,857 15s. Companies registered.

Five companies were wound up during the year, of which the aggregate number of shares was 116,200, and the aggregate nominal capital £51,850.

Information relative to the companies registered and wound up previous to the 1st January 1873 is given in the *Mineral Statistics* 1872.

The Board appointed to investigate claims for rewards for the discovery of new goldfields has had many applications under consideration during the year. The only claim for which a reward was recommended was that for the discovery of the goldfield known as Turton's Creek. The Board has recommended that a sum of £250 be paid to the discoverers. New goldfields.

Four candidates presented themselves for examination in land and mine surveying during the year 1873. Only one succeeded in obtaining the number of marks requisite to entitle him to a certificate, but as he was deficient in field practice, the issue of the certificate was postponed. Examination of mining surveyors.

The amount of business transacted in the department during the years 1872 and 1873 may be estimated from the following figures :— Business of the Department.

	1872.	1873.
Number of letters received	25,067	23,922
Correspondence referred from other departments, inwards	9,476	9,793
References, outwards	7,832	9,538
Number of accounts received	4,533	6,016
Number of accounts passed	4,548	5,995
Number of schedules passed (in triplicate)	733	555
Number of returns received	5,663	6,028
Number of letters, outwards	34,094	32,866

The number of applications for leases and licenses dealt with during the year 1873 was as follows :— Number of applications for leases and licenses.

Applications lodged for Gold Mining Leases	843
Applications lodged for Mineral Leases	63
Applications lodged for Water-right Licenses	15
Applications lodged for Gold Mining Leases on Reserved Lands	52

Total number of applications for leases and licenses dealt with (granted, refused, or abandoned) as notified in the *Government Gazette* } 1,008

Attendance of
officers.

Mr. Richard Francis, the chief clerk, has prepared the usual annual statement, from which it appears the overtime given by the officers of the department was $140\frac{3}{8}$ weeks, and the total period of absence from duty was $67\frac{1}{3}$ weeks.

METALS AND MINERALS OTHER THAN GOLD.

Silver.—940 tons of silver ore were raised during the year, and 5516 ozs. of silver were obtained.

Tin.—The exports of tin ore during the year were 174 tons 16 cwt., and of tin, 109,312 lbs.

Copper.—5 cwt. of copper was exported.

Antimony.—There were raised during the year 1428 tons 3 cwt., of antimony ores; and 677 tons 12 cwt. of ore, and 32 tons 3 cwt. of antimony regulus, and 113 tons 6 cwt. of antimony were exported.

Lead.—The quantity of ore raised during the year was 162 tons, and the quantities exported, of ore 60 tons 13 cwt., and of lead 1 cwt.

Iron.—Of iron ore 52 tons were raised and 2 tons were exported.

Coal and Lignite.—The quantity of coal raised was 504 tons; and the quantity of lignite raised, 763 tons.

Clays.—The quantity of kaolin raised during the year was 25 tons 12 cwt.

Flags and Slates.—1960 tons 4 cwt. of flagging were raised.

Full information relative to the exploration of mines where metals and minerals other than gold are raised is given in the tables and appendices.

The number of miners employed during the quarter ending 31st December 1873 in mining for metals and minerals other than gold was as follows:—

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Oval Miners.	Silver Miners.	Tin Miners.	Copper Miners.	Antimony Miners.	Lead Miners.	Coal Miners.	Lignite Miners.	Slate and Flag Miners.	Grand Totals.
Ballarat ...	Buninyong Division ...	...	...	...	...	...	...	...	16	...	16
Beechworth ...	Beechworth Division ...	...	...	70	...	...	...	...	...	...	70
	Big River Subdivision ...	...	...	...	...	2	...	...	...	...	2
	Mitta-mitta Division ...	...	...	55	...	...	...	...	...	...	55
	Kilmore Division ...	...	...	...	...	4	...	...	...	...	4
Sandhurst ...	Heathcote Division and Waranga South Subdivision ...	...	...	...	...	71	...	...	...	...	71
	Waranga North Subdivision ...	...	...	...	...	2	...	...	...	...	2
	St. Arnaud North Subdivision ...	...	32	...	...	...	...	...	...	...	32
Maryborough	Castlemaine Division ...	...	...	...	...	...	...	...	...	44	44
Castlemaine ...	St. Andrew's Division ...	...	...	7	...	8	...	30	...	...	45
	Pleasant Creek Division ...	...	...	...	2	...	...	...	...	1	3
Ararat ...	Mitchell River Subdivision ...	2	...	...	2	...	20	...	...	...	24
Gippsland ...	Stringer's Creek Division ...	...	...	...	10	...	...	...	...	...	10
	Traralgon Subdivision ...	...	...	...	...	...	...	10	...	...	10
Totals ...		2	32	132	14	87	20	40	16	45	388

The following is an estimate of the Metals and Minerals raised in the colony from the first discovery of the goldfields to 31st December 1873.

Gold.—Quantity exported and minted in the colony from the date of the first discovery to the 31st December 1873, 43,258,205 ozs.

5 dwts.,* at £4 per oz. £173,032,821

* From returns furnished by the Honorable the Commissioner of Trade and Customs and the Deputy Master of the Mint, and inclusive of 1,267,241 ozs., which, according to the Registrar-General's tables, were produced in Victoria in 1852-5, but passed through the Customs of New South Wales, Tasmania, and South Australia, and not recorded in Victorian tables. The quantities used and manufactured in the colony cannot be estimated.

Silver.—Ore raised, 12,288 tons.

Produce of Silver from ore treated, 24,719 ozs. 8 dwts., at 5s. 6d.						6,798
	per oz.	...	...	...	...
<i>Tin</i> .—Ore exported, 2,601 tons 2 cwt.	...	...	...	...	£192,936	
"	92 tons 9 cwt., at £70 per ton	...	...	...	6,471	
"	177 tons 10 cwt., at £52 10s. per ton	...	...	...	9,318	
"	269 tons 1 cwt.	...	...	...	17,551	
"	146 tons 15 cwt.	...	...	...	9,524	
"	250 tons	...	...	...	17,500	
"	294 tons 19 cwt.	...	...	...	20,775	
"	174 tons 16 cwt.	...	...	...	11,301	
Tin exported	3 tons 12 cwt. 3 qrs. 12 lbs., at £140 per ton	...	...	...	510	
"	7 tons 16 cwt.	...	...	...	729	
"	14 cwt., at £140 per ton	...	...	...	98	
"	15 cwt.	...	...	...	157	
"	7 tons 19 cwt.	...	...	...	1,097	
"	41 tons 10 cwt.	...	...	...	5,439	
"	48 tons 16 cwt.	...	...	...	5,760	
Tin consumed in Victoria, 60 tons	...	...	...	...	6,720	
						305,886
<i>Copper</i> .—Ores raised, about 1,255 tons.						
Smelted, 31 tons 7 cwt., at £112 per ton	...	...	...	...	£3,511	
Regulus, 70 tons 16 cwt.	...	...	...	...	1,969	
Rough copper, 10½ tons	...	...	...	...	320	
Ore exported, 5 cwt.	...	...	...	...	10	
Copper exported, 5 cwt.	...	...	...	...	30	
						5,840
<i>Antimony</i> .—Ore raised, 2,955 tons 15 cwt. 26 lbs.	...	...	...	...	£32,102	
"	435 tons, at £6 per ton	...	...	...	2,610	
"	272 tons, at £9 per ton	...	...	...	2,448	
"	510 tons, at £7 per ton	...	...	...	3,570	
"	199 tons, at £4 per ton	...	...	...	796	
"	1,661 tons 3 cwt.	...	...	...	13,669	
"	1,575 tons 1 cwt.	...	...	...	12,600	
"	1,573 tons 15 cwt., at £6 per ton	...	...	...	9,442	
"	1,428 tons 3 cwt., at £6 5s. per ton	...	...	...	8,926	
						86,163
<i>Lead</i> .—Ore raised, 100 tons, at £6 per ton	...	...	...	...	£600	
"	45 tons	...	...	...	270	
"	100 tons	...	...	...	600	
"	162 tons, at £10 per ton	...	...	...	1,620	
						3,090
<i>Iron</i> .—Ore raised, 52 tons	...	...	...	...	...	288
<i>Coal</i> .—2,043 tons, at £1 10s. per ton	...	...	...	...	£3,064	
504 tons, at £1 12s. per ton	...	...	...	...	806	
						3,870
<i>Lignite</i> .—1,992 tons, at 17s. 6d. per ton	...	...	...	...	£1,742	
763 tons, at 5s.	...	...	...	...	191	
						1,933
<i>Kaolin</i> .—1,757 tons, at £4 per ton	...	...	...	...	£7,028	
50 tons 2 cwt., at £5 10s. per ton	...	...	...	...	275	
25 tons 12 cwt., at £5 10s. per ton	...	...	...	...	141	
						7,444
<i>Flagging</i> .—78,660 square yards	...	...	...	...	£22,370	
1,500 square yards	...	...	...	...	525	
3,918 tons	...	...	...	...	6,206	
1,738 tons	...	...	...	...	2,607	
1,960 tons	...	...	...	...	980	
						32,688
<i>Slates</i> .—11,000, at £8 per 1,000	...	...	...	...	£88	
160 tons, at £4 per ton	...	...	...	...	640	
						728
<i>Magnesite</i> .—6½ tons, at £2 per ton	...	...	...	...	...	12
<i>Diamonds</i> .—About 103 carats, at an average of, say, £1 per carat	...	...	...	...	...	103
<i>Sapphires</i> .—Numbers cannot be estimated, say	...	...	...	...	...	180
						£173,487,844

The prices of the several ores, &c., have been obtained from persons best acquainted with the market value of them.

Office of Mines,
Melbourne, 9th February 1874.

R. BROUGH SMYTH,
Secretary for Mines.

TABLES.

No. 1.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1873.

Quarter.	BALLARAT.			BEECHWORTH.			SANDHURST.			MARYBOROUGH.		
	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.
First Quarter, ending March 31st	8,529	3,342	11,871	5,962	1,400	7,362	3,127	5,105	8,232	8,779	1,973	10,752
Second Quarter, ending June 30th	8,486	3,412	11,898	5,863	1,346	7,209	3,149	5,064	8,213	8,971	1,976	10,947
Third Quarter, ending Sept. 30th	8,027	3,170	11,197	5,578	1,359	6,937	2,984	5,022	8,006	9,177	2,016	11,193
Fourth Quarter, ending Dec. 31st	8,220	3,168	11,388	5,557	1,371	6,928	2,899	5,078	7,977	8,484	1,880	10,364

Quarter.	CASTLEMAINE.			ARARAT.			GIPPSLAND.			GRAND TOTALS.		
	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.
First Quarter, ending March 31st	5,332	3,176	8,508	2,168	984	3,152	2,068	928	2,996	35,965	16,908	52,873
Second Quarter, ending June 30th	5,238	3,276	8,514	2,118	1,038	3,156	1,981	967	2,948	35,806	17,079	52,885
Third Quarter, ending Sept. 30th	5,193	3,129	8,322	2,142	1,085	3,227	2,064	928	2,992	35,165	16,709	51,874
Fourth Quarter, ending Dec. 31st	4,665	3,141	7,806	1,996	1,167	3,163	2,001	968	2,969	33,822	16,773	50,595

NOTE.—The mean number of miners employed during the year was 52,057; and the total quantity of gold exported and received at the Mint was 1,220,879 ozs., which, at £4 per oz., gives £93 16s. 2-62d. per man per annum. The rate per man per annum, for 1872, was £93 17s. 1-47d.; for 1871, £93 6s. 0-62d.; for 1870, £81 9s. 6-46d.; for 1869, £79 7s. 0-87d.; for 1868, £104 18s. 8-75d.; for 1867, £87 1s. 6-91d.; for 1866, £80 8s. 3-87d.; for 1865, £74 4s. 2-09d.; for 1864, £74 1s. 9-29d.; for 1863, £70 9s. 0-42d.; for 1862, £67 14s. 5-11d.; for 1861, £74 15s. 11d.; and for 1860, £79 9s. 3-07d.

No. 2.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS during the Quarter ended 31st December 1873.

Mining Districts.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District	5,744	2,476	3,160	8	8,904	2,484	11,388
Beechworth District	2,372	3,185	1,339	32	3,711	3,217	6,928
Sandhurst District	2,124	775	5,046	32	7,170	807	7,977
Maryborough District	5,473	3,011	1,868	12	7,341	3,023	10,364
Castlemaine District	2,356	2,309	3,135	6	5,491	2,315	7,806
Ararat District	1,081	915	1,142	25	2,223	940	3,163
Gippsland District	1,259	742	968	...	2,227	742	2,969
Totals	20,409	13,413	16,658	115	37,067	13,528	50,595

No. 3.

NUMBER of MINERS employed in the Mining District of BALLARAT during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Central Division	2,370	320	728	...	3,098	320	3,418
Southern Division	402	620	30	...	432	620	1,052
Buninyong Division	760	130	150	...	910	130	1,040
Smythesdale Division	1,185	500	50	...	1,235	500	1,735
Creswick Division	750	500	850	...	1,600	500	2,100
Gordon Subdivision	22	...	202	4	224	4	228
Steiglitz Subdivision	95	110	505	...	600	110	710
Blackwood Division and Blue Mountain South Subdivision	160	296	620	4	780	300	1,080
Ballan Subdivision ... ..	...	...	25	...	25	...	25
Totals	5,744	2,476	3,160	8	8,904	2,484	11,388

No. 4.

NUMBER of MINERS employed in the Mining District of BEECHWORTH during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Division	1,106	925	93	...	1,199	925	2,124
Yackandandah Division	260	387	120	...	380	387	767
Indigo Division	194	326	59	...	253	326	579
Buckland Division	130	1,214	440	2	570	1,216	1,786
Alexandra Subdivision	180	25	116	...	296	25	321
Dry Creek Subdivision	65	100	...	...	65	100	165
Benalla Subdivision ... ..	...	...	...	...	...	...	...
Gaffney's Creek Subdivision	69	6	57	30	126	36	162
Wood's Point Subdivision	140	10	144	...	284	10	294
Big River Subdivision	54	8	60	...	114	8	122
Mitta-mitta Division	94	64	...	...	94	64	158
Jamieson Subdivision	80	120	250	...	330	120	450
Totals	2,372	3,185	1,339	32	3,711	3,217	6,928

No. 5.

NUMBER of MINERS employed in the Mining District of SANDHURST during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Sandhurst Division	1,680	640	4,326	24	6,006	664	6,670
Kilmore Division	40	25	50	...	90	25	115
Heathcote Division and Waranga South Sub- division	360	50	480	...	840	50	890
Waranga North Subdivision	44	60	190	8	234	68	302
Totals	2,124	775	5,046	32	7,170	807	7,977

No. 6.

NUMBER of MINERS employed in the Mining District of MARYBOROUGH during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	1,960	400	840	...	2,800	400	3,200
Majorca Subdivision	189	40	4	...	193	40	233
Amherst Division	416	90	54	...	470	90	560
Avoca Subdivision	835	1,466	70	...	905	1,466	2,371
Dunolly and Tarnagulla Divisions	355	320	412	12	767	332	1,099
Korong Division	1,425	570	250	...	1,675	570	2,245
Redbank and St. Arnaud South Subdivisions	239	51	49	...	288	51	339
St. Arnaud North Subdivision... ..	54	74	189	...	243	74	317
Totals	5,473	3,011	1,868	12	7,341	3,023	10,364

No. 7.

NUMBER of MINERS employed in the Mining District of CASTLEMAINE during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division	460	390	755	...	1,215	390	1,605
Fryer's Creek Division	950	868	483	...	1,433	868	2,301
Hepburn Division	576	554	907	6	1,483	560	2,043
Taradale and Kyneton Subdivision	66	135	300	...	366	135	501
Tarrangower Division	110	227	531	...	641	227	868
St. Andrew's Division	162	130	140	...	302	130	432
Blue Mountain North Subdivision	32	5	19	...	51	5	56
Totals	2,356	2,309	3,135	6	5,491	2,315	7,806

No. 8.

NUMBER of MINERS employed in the Mining District of ARARAT during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division	240	450	12	...	252	450	702
Pleasant Creek Division	358	160	1,105	25	1,463	185	1,648
Barkly Division	250	195	...	...	250	195	445
Raglan Division	233	110	25	...	258	110	368
Totals	1,081	915	1,142	25	2,223	940	3,163

No. 9.

NUMBER of MINERS employed in the Mining District of GIPPSLAND during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Omeo Subdivision	65	355	25	...	90	355	445
Mitchell River and Boggy Creek Subdivisions	226	210	14	...	240	210	450
Crooked River Division	132	89	91	...	223	89	312
Jericho Division	98	85	90	...	188	85	273
Donnelly's Creek Division	50	1	56	...	106	1	107
Stringer's Creek Division	71	...	609	...	680	...	680
Russell's Creek Subdivision	180	2	28	...	208	2	210
Bendoc Subdivision	38	...	35	...	73	...	73
Tarwin Subdivision	370	...	20	...	390	...	390
Traralgon Subdivision	29	...	...	...	29	...	29
Totals	1,259	742	963	...	2,227	742	2,969

No. 10.

SUMMARY.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the several MINING DISTRICTS during the Quarter ended 31st December 1873.

Mining Districts.		ALLUVIAL MINING.													
		Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.
		Total Number.	Aggregate Horse-power.												
Ballarat District ...	...	197	5,929	213	11	206	76	25	1,535	1	41	5	7	19	9
Beechworth District	...	44	711	15	...	55	24	51	13,906	14	195	148	...	...	5
Sandhurst District	...	19	290	...	...	153	10	35	54	...	99	...	6	163	1
Maryborough District	...	71	2,087	65	...	415	78	71	148	...	90	2	86	154	7
Castlemaine District	...	14	301	7	...	264	32	60	578	...	132	5	73	46	1
Ararat District ...	...	15	241	1	...	38	20	14	54	...	15	...	29	50	3
Gippsland District	...	2	20	1	...	20	9	3	1,477	2	79	65	...	...	1
Totals ...	...	362	9,579	302	11	1,151	249	259	17,752	17	651	225	201	432	27

Mining Districts.		QUARTZ MINING.										Approximate Value of all Mining Plant in the Districts.
		Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.		
		Total Number.	Aggregate Horse-power.									
Ballarat District ...	...	131	3,385	12	1,194	28	2	62	13	2	£ 494,668
Beechworth District	...	65	859	44	1,024	6	1	18	11	...	256,295	
Sandhurst District	...	235	4,133	2	1,423	3	...	228	282	1	503,398	
Maryborough District	...	109	2,017	...	830	2	...	132	118	...	310,395	
Castlemaine District	...	165	3,296	4	1,141	3	2	172	221	...	292,418	
Ararat District ...	...	38	1,032	...	397	...	...	51	12	...	122,611
Gippsland District	...	46	799	15	492	1	...	6	1	...	150,903	
Totals ...	...	789	15,521	77	6,501	43	5	609	658	3	2,131,188

NOTE.

In the Ballarat District the machinery used in alluvial mining shows a decrease, as compared with the returns for 1872, of 13 steam-engines, 333 horse-power, 5 steam puddling machines, 9 buddles, 41 horse puddling machines, 10 whims, 155 sluices, toms, and sluice-boxes, 2 pumps, and 1 boring machine; and an increase of 6 whips or pulleys, 3 water-wheels, and 9 stamp-heads (crushing cement). In quartz mining there is a decrease of 5 steam-engines, 41 stamp-heads, 11 winding, washing, pumping, or other machines moved by water-power; and an increase of 68 horse-power in the steam-engines, 12 crushing machines driven by other power than steam, 3 buddles, 7 whims, and 3 whips or pulleys. The value of all mining plant in the district shows an increase of £1343.

In the Beechworth District the machinery used in alluvial mining shows an increase of 1 steam-engine, 9 horse-power, 1 steam puddling machine, 5 hydraulic hoses, 44 pumps, and 2 boring machines; and a decrease of 4 horse puddling machines, 2 whims, 2 whips or pulleys, 104 sluices, toms, or sluice-boxes, and 6 water-wheels. In quartz mining there is an increase of 12 horse-power in the steam-engines, 4 crushing machines driven by other power than steam, 4 buddles, and 1 whip or pulley; and a decrease of 8 steam engines, 45 stamp-heads, and 1 boring machine. The value of all mining plant in the district shows a decrease of £13,296.

In the Sandhurst District the machinery used in alluvial mining shows a decrease of 1 steam-engine, 8 horse-power, 20 horse puddling machines, 7 whips or pulleys, 20 sluices, toms, or sluice-boxes, and 12 stamp-heads (crushing cement); and an increase of 78 pumps. In quartz mining there is an increase of 11 steam-engines, 119 horse-power, 11 stamp-heads, and 1 buddle; and a decrease of 6 whims and 15 whips or pulleys. The value of all mining plant in the district has increased £15,208.

In the Maryborough District the machinery used in alluvial mining shows a decrease of 3 steam-engines, 57 horse-power, 32 horse puddling machines, 3 sluices, toms, and sluice-boxes, 30 pumps, and 7 quicksilver and compound cradles; and an increase of 1 steam puddling machine, 1 whim, 2 whips or pulleys, 67 stamp-heads (crushing cement), and 1 boring machine. In quartz mining there is an increase of 4 steam-engines, 82 stamp-heads, 1 buddle, and 15 whips or pulleys; and a decrease of 23 horse-power in the steam-engines and 2 whims. The value of all mining plant in the district has decreased £996.

In the Castlemaine District the machinery used in alluvial mining shows a decrease of 4 steam-engines, 8 horse-power, 1 buddle, 27 horse puddling machines, 42 sluices, toms, and sluice-boxes, 41 pumps, 39 quicksilver and compound cradles, and 38 stamp-heads (crushing cement); and an increase of 1 steam puddling machine, 19 whims, 5 whips or pulleys, and 1 water-wheel. In quartz mining there is an increase of 5 steam-engines and 209 horse-power, 2 crushing machines driven by other power than steam, and 47 whips or pulleys; and a decrease of 45 stamp-heads, 1 winding, washing, pumping, or other machine moved by water-power, and 5 whims. The value of all mining plant in the district shows an increase of £25,373.

In the Ararat District the machinery used in alluvial mining shows an increase of 2 steam-engines, 66 horse-power, 3 whims, 8 sluices, toms, and sluice-boxes, 1 pump, and 1 boring machine; and a decrease of 15 horse puddling machines, 2 whips or pulleys, 1 quicksilver and compound cradle, and 8 stamp-heads. In quartz mining there is an increase of 5 horse-power in the steam-engines and 2 whims, and a decrease of 4 steam-engines, 13 stamp-heads, and 1 boring machine. The value of all mining plant in the district has increased £2186.

In the Gippsland District the machinery used in alluvial mining shows an increase of 1 steam-engine, 14 horse-power, 6 horse puddling machines, 1 whim, and 2 whips or pulleys; and a decrease of 175 sluices, toms, and sluice-boxes, 5 pumps, 5 water-wheels, and 1 boring machine. In quartz mining there is an increase of 4 steam-engines, 13 horse-power, and 1 whim; and a decrease of 2 crushing machines, driven by other power than steam, 8 stamp-heads, and 1 boring machine. The value of all mining plant in the district has increased £2791.

Comparing the totals of machinery employed on the goldfields in 1873 with the totals for 1872, the machinery used in alluvial mining shows a decrease of 17 steam-engines, 317 horse-power, 1 steam puddling machine, 10 buddles, 133 horse puddling machines, 491 sluices, toms, and sluice-boxes, 7 water-wheels, and 47 quicksilver and compound cradles; and an increase of 12 whims, 4 whips or pulleys, 5 hydraulic hoses, 45 pumps, 18 stamp-heads (crushing cement), and 2 boring machines. In quartz mining there is an increase of 7 steam-engines, 403 horse-power, 16 crushing machines driven by other power than steam, 9 buddles, and 51 whips or pulleys; and a decrease of 59 stamp-heads, 12 winding, washing, pumping, or other machines moved by water-power, and 4 boring machines. There is an increase in the total value of all mining plant on the goldfields, as compared with 1872, of £32,614.

No. 11.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of BALLARAT during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Divisions or Subdivisions.					
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Snice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.		Whims.	Whips or Pulleys.	Boring Machines used in Blasting.		
	Total Number.	Aggregate Horse-power.													Total Number.	Aggregate Horse-power.										
Central Division ...	84	3,367	107	...	43	41	3	46	1	7	...	2	...	5	41	935	...	...	434	3	...	...	19	...	...	196,355
Southern Division ...	6	122	7	...	40	3	11	5	...	...	...	...	...	1	3	40	...	...	30	...	...	2	...	...	...	19,000
Buninyong Division ...	23	710	16	...	3	3	4	24	...	19	...	...	...	...	8	250	...	...	86	3	...	...	...	...	...	43,000
Smythesdale Division ...	62	1,370	66	...	11	7	...	60	...	...	3	5	9	...	5	80	...	...	27	2	...	...	...	...	...	99,300
Creswick Division ...	21	350	17	...	85	16	7	800	...	...	...	...	10	2	35	1,206	...	...	233	20	...	...	...	...	...	122,500
Gordon Subdivision ...	1	10	...	...	2	...	...	...	...	...	...	...	...	...	8	177	...	...	63	...	...	...	...	...	...	9,473
Steiglitz Subdivision ...	...	...	...	...	...	...	...	100	...	...	...	...	...	...	10	277	...	...	58	...	...	...	...	...	...	20,045
Blackwood Division and Blue Mountain South Subdivision ...	...	...	...	...	...	...	...	500	...	15	2	...	...	...	20	410	...	...	255	...	...	...	...	...	...	54,000
Ballan Subdivision ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	10	...	...	8	...	...	...	...	...	...	1,000
Totals ...	197	5,929	213	11	206	76	25	1,535	1	41	5	7	19	9	131	3,385	12	1,194	28	2	62	13	2	...	...	494,665

No. 12.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of BEECHWORTH during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Divisions or Subdivisions.
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.		
	Total Number.	Aggregate Horse-power.										Total Number.	Aggregate Horse-power.								
Beechworth Division	25	270	..	6	12	9	5,200	3	52	20	2	..	6	89	3	59	..	..	..	50,160
Yackandandah Division	1	6	..	..	..	..	3,000	2	22	20	..	..	7	90	2	58	..	..	..	10,500
Indigo Division	12	348	11	39	10	38	190	..	15	20	..	1	3	28	..	22	..	..	6	25,378
Buckland Division	2	22	..	..	..	..	2,000	3	53	53	..	1	19	243	16	278	1	..	..	37,450
Alexandra Subdivision	4	65	4	10	2	3	30	..	2	..	..	1	6	86	..	66	..	..	4	14,510
Dry Creek Subdivision	..	..	..	..	..	..	400	..	..	4	..	..	..	..	..	..	..	..	..	400
Benalla Subdivision	..	..	..	..	..	..	..	..	14	14	..	..	..	..	..	..	..	..	..	..
Gaffney's Creek Subdivision	..	..	..	..	..	2	180	..	..	..	..	..	6	78	12	172	1	..	..	20,808
Wood's Point Subdivision	..	..	..	..	..	3	260	..	16	16	..	..	8	115	9	250	2	3	1	60,274
Big River Subdivision	..	..	..	..	..	..	220	..	9	9	..	..	5	52	..	42	..	..	..	10,719
Mitta-mitta Division	..	..	..	..	..	..	2,026	6	12	12	..	..	..	..	..	..	..	..	..	1,896
Jameson Subdivision	..	..	..	..	..	..	400	..	..	..	..	..	5	78	2	77	..	..	..	15,200
Totals	44	711	15	55	24	51	13,906	14	195	148	5	65	859	44	1,024	6	1	18	11	256,295	

No. 13.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of SANDHURST during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.									Approximate Value of all Mining Plant in the Divisions or Subdivisions.
	Steam-engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whlms.	Whips or Pulleys.	Sluice-boxes, and Sluices, Toms, and Pumps.	Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other vch-stuff).	Buddles.	Whlms.	Whips or Pulleys.	Boring Machines used in Blasting.			
	Total Number.	Aggregate Horse-power.								Total Number.	Aggregate Horse-power.									
Sandhurst Division	6	27	...	9	6	163	1	205	3,690	...	1,170	3	212	253	1	462,000	
Kilmore Division	3	47	2	35	...	...	...	...	3,500	
Heathcote Division and Waranga South Subdivision	49	4	8	54	90	...	...	...	16	218	...	129	...	10	23	...	20,798	
Waranga North Subdivision	11	178	...	89	...	6	6	...	17,100	
Totals	153	10	35	54	99	6	163	1	235	4,133	2	1,493	3	228	282	1	503,398	

No. 14.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of MARYBOROUGH during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.											QUARTZ MINING.						Approximate Value of all Mining Plant in the Divisions or Subdivisions.	
	Steam-engines employed in Winding, Pumping, &c.	Steam Puddling Machines.	Horse Puddling Machines.	Whlms.	Whips or Pulleys.	Sluice-boxes, Toms, and Stakes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.	Stamp-heads (crush- ing Quartz or other vein-stuff).	Buddles.	Whlms.	Whips or Pulleys.			
																	Total Number.		Aggregate Horse-power.	Total Number.	Aggregate Horse-power.
Maryborough Division	42	1,468	39	178	34	10	6	4	2	36	148	4	26	604	201	1	30	25	149,152
Majorca Subdivision	10	220	10	5	6	9	6	6	7	7	...	...	...	...	...	...	...	...	11,590
Amherst Division	7	94	8	46	12	22	70	70	23	...	...	...	3	54	28	...	4	10	13,490
Avoca Subdivision	8	253	8	81	6	19	48	10	3	...	...	3	4	53	42	1	3	7	17,598
Dunolly and Tarnagulla Divisions	2	32	...	60	16	8	...	...	15	...	...	...	42	696	265	...	30	24	64,000
Korong Division	2	20	...	22	2	11	...	...	...	6	...	...	16	264	196	...	50	31	19,500
Redbank and St. Arnaud South Subdivisions	...	...	...	12	2	1	8	...	...	...	...	...	5	80	36	...	3	3	7,382
St. Arnaud North Subdivision	...	...	...	11	...	...	7	...	2	...	...	...	13	266	63	...	12	18	28,303
Totals	71	2,087	65	415	78	71	148	90	2	86	154	7	109	2,017	830	2	132	118	310,895

No. 15.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the MINING DISTRICT of CASTLEMAINE during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Divisions or Subdivisions.
	Steam-engines employed in Winding, Pumping, &c.	Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Shute-boxes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.	Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.			
																			Total Number.	Aggregate Horse- power.	
Castlemaine Division	3	48	5	114	2	..	70	16	..	52	..	..	45	782	..	314	..	..	31	48	75,756
Fryer's Creek Division	5	88	1	77	6	15	306	38	2	3	36	..	19	461	..	137	2	1	9	15	68,498
Hepburn Division	1	26	1	37	4	45	170	75	3	10	1	..	36	641	3	237	1	..	63	62	42,977
Tarradale and Kyneton Subdivision	5	139	..	9	20	..	8	3	..	..	..	..	18	379	..	156	..	..	90	..	32,471
Tarrangower Division	..	..	..	21	..	..	24	..	4	18	..	..	37	899	..	222	..	1	47	96	65,775
St. Andrew's Division	..	..	..	5	..	..	..	..	..	..	..	..	2	106	1	67	..	..	2	..	5,791
Blue Mountain North Subdivision	..	..	..	1	..	..	..	..	..	..	..	..	8	28	..	8	..	..	..	..	1,150
Totals	14	301	7	264	32	60	578	132	5	73	46	1	165	3,296	4	1,141	3	2	172	221	292,418

No. 16.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of ARARAT during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions.	ALLUVIAL MINING.										QUARTZ MINING.					Approximate Value of all Mining Plant in the Divisions.
	Steam-engines employed in Winding, Pumping, &c.	Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Shute-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Whims.	Whips or Pulleys.		
											Total Number.	Aggregate Horse-power.				
Ararat Division	...	1	13	8	12	25	12	4	14	...	5	86	45	3	...	13,081
Pleasant Creek Division	1	2	...	25	...	25	36	...	31	924	334	48	...	100,100
Barkly Division	5	1	...	...	...	...	...	...	1	10	10	...	...	2,330
Raglan Division	19	9	2	4	3	...	...	3	1	12	8	...	...	7,100
Totals	...	1	38	20	14	54	15	29	50	3	38	1,032	397	51	12	122,611

No. 17.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of GIPPSLAND during the Quarter ended 31st December 1873.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.							Approximate Value of all Mining Plant in the Divisions or Subdivisions.	
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Whims.		Whips or Pulleys.
	Number.	Aggregate Horse-power.										Number.	Aggregate Horse-power.						
Omeo Subdivision	875	2	21	21	...	1	17	2	23	...	...	1	£ 6,315
Mitchell River and Boggy Creek Subdivisions	2	17	...	17	...	1	...	2,000
Crooked River Division	168	...	28	14	...	9	137	7	126	...	...	...	32,237
Jericho Division...	150	...	20	20	...	5	70	...	58	...	...	...	18,672
Donnelly's Creek Division	25	...	...	...	...	4	58	1	51	...	...	...	10,000
Stringer's Creek Division	18	424	1	157	1	1	...	72,042
Russell's Creek Subdivision	6	...	1	150	...	10	5	...	...	2	20	2	16	...	2	...	2,800
Bendoo Subdivision	35	...	...	5	...	...	4	46	2	40	...	1	...	4,820
Tarwin Subdivision	2	20	1	14	9	2	68	...	...	...	...	1	10	...	4	...	1	...	1,977
Traralgon Subdivision	6	...	...	...	1	...	...	...	...	...	...	...	40
Totals ...	2	20	1	20	9	3	1,477	2	79	65	1	46	799	15	492	1	6	1	150,903

No. 18.

SUMMARY.

NUMBER of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon in the several Mining Districts.

Mining Districts.						Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District ...	...	...	...	...	...	202	149½
Beechworth District ...	...	...	...	...	...	849	271½
Sandhurst District ...	...	...	...	...	...	753	141
Maryborough District ...	...	...	...	...	...	569	82½
Castlemaine District ...	...	...	...	...	...	394	165½
Ararat District ...	...	...	...	...	...	77	83½
Gippsland District ...	...	...	...	...	...	480	158
Totals ...	...	...	...	...	...	3,324	1,050½

NOTE.—The number of "distinct" quartz reefs cannot be strictly correct, as parts of the same reef, in some localities, are held to be distinct reefs, and named accordingly. As the reefs are further explored, it is found, too, that what were supposed to be separate reefs are not really distinct. The extent of auriferous ground is here put down from estimates made by the Mining Surveyors and Registrars, not from actual surveys; and in a few instances the estimates of the present Surveyors and Registrars differ from those made by their predecessors. The figures vary from year to year; as the shallow alluviums of the older goldfields are abandoned by the miners, they are taken up and occupied, under the provisions of the Land Act, by agriculturists and gardeners, and ground which one year was included in the estimated area of gold-workings is excluded in another.

No. 19.

TABLE showing the Number of distinct QUARTZ REEFS actually proved to be Auriferous, and the Total Extent in Square Miles of Auriferous ALLUVIAL and QUARTZ GROUND actually worked upon, in the several DIVISIONS and SUBDIVISIONS of each Mining District.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.					Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT ...	Central Division ...	...	...	...	...	24	39½	
	Southern Division ...	...	...	...	...	14	6½	
	Buninyong Division ...	...	...	...	...	13	16	
	Smythesdale Division ...	...	...	...	...	11	15	
	Creswick Division ...	...	...	...	...	15	13	
	Gordon Subdivision ...	...	...	...	...	19	3½	
	Steiglitz Subdivision ...	...	...	...	...	73	50	
	Blackwood Division and Blue Mountain	...	...	...	...	30	4½	
	South Subdivision ...	...	...	...	...	3	1	
	Ballan Subdivision ...	...	...	...	...	...	...
Totals ...						202	149½	

No. 19.—TABLE showing Number of distinct Quartz Reefs actually proved to be Auriferous, &c.—*continued*.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Number of distinct Quartz Reefs Proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BEECHWORTH	Beechworth Division	95	47	
	Yackandandah Division	80	12	
	Indigo Division	25	7 $\frac{1}{4}$	
	Buckland Division	438	60	
	Alexandra Subdivision	57	28	
	Dry Creek Subdivision	...	5	
	Benalla Subdivision	3	10	
	Gaffney's Creek Subdivision	18	24	
	Wood's Point Subdivision	94	18	
	Big River Subdivision	14	33	
	Mitta-mitta Division	...	18	
	Jamieson Subdivision	25	9	
	Totals	849	271 $\frac{1}{4}$	
SANDHURST	Sandhurst Division	318	22	
	Kilmore Division	127	27	
	Heathcote Division and Waranga South Subdivision	202	81	
	Waranga North Subdivision	106	11	
	Totals	753	141	
MARYBOROUGH	Maryborough Division	157	5	
	Majorca Subdivision	15	2 $\frac{1}{2}$	
	Amherst Division	30	5	
	Avoca Subdivision	19	18 $\frac{1}{4}$	
	Dunolly and Tarnagulla Divisions	185	16	
	Korong Division	71	17	
	Redbank and St. Arnaud South Subdivisions	27	11 $\frac{3}{4}$	
	St. Arnaud North Subdivision	65	7	
	Totals	569	82 $\frac{1}{2}$	
CASTLEMAINE	Castlemaine Division	103	9 $\frac{1}{4}$	
	Fryer's Creek Division	36	28 $\frac{3}{4}$	
	Hepburn Division	88	82	
	Taradale and Kyneton Subdivision	19	22	
	Tarrangower Division	74	4 $\frac{1}{4}$	
	St. Andrew's Division	70	15	
	Blue Mountain North Subdivision	4	4	
	Totals	394	165 $\frac{1}{4}$	
ARARAT	Ararat Division	26	34	
	Pleasant Creek Division	37	27	
	Barkly Division	9	16	
	Raglan Division	5	6 $\frac{1}{4}$	
	Totals	77	83 $\frac{1}{4}$	
GIPPSLAND	Omeo Subdivision	19	10	
	Mitchell River and Boggy Creek Subdivisions	18	23	
	Crooked River Division	348	49 $\frac{1}{2}$	
	Jericho Division	30	26	
	Donnelly's Creek Division	17	6 $\frac{1}{2}$	
	Stringer's Creek Division	15	8	
	Russell's Creek Subdivision	14	4	
	Bendoc Subdivision	14	26	
	Tarwin Subdivision	4	3	
	Traralgon Subdivision	1	2	
	Totals	480	158	

No. 20.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1873 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Crushed.		Total Produce.			Average Yield per Ton.		
	tons	cwts.	ozs. dwts. grs.			ozs. dwts. grs.		
Ballarat District	322,333	14	90,440	7	21	0	5	14.68
Beechworth District	85,382	11	41,164	14	17	0	9	15.42
Sandhurst District	317,429	0	247,239	8	4	0	15	13.86
Maryborough District	40,509	5	21,031	16	14	0	10	9.20
Castlemaine District	129,855	14	60,990	16	16	0	9	9.44
Ararat District	60,733	0	57,313	10	17	0	18	20.97
Gippsland District	35,430	15	49,033	12	9	1	7	16.28
Totals	991,673	19	567,214	7	2	0	11	10.55

NOTE.—The above table does not show the total quantity of quartz crushed in the several localities, but only the yield of certain "crushings" respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the Statistics, information has been obtained concerning 10,474.568 tons 17 cwt. which have been crushed, which yielded 5,874,419 ozs. 8 dwts. 2 grs. of gold, being an average of 11 dwts. 5 19 grs. per ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1873 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
			ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	105,227½	18,112 7 19	0 3 11'98	
	Southern Division	5,572	789 1 13	0 2 19'97	
	Buninyong Division	15,166	2,256 7 6	0 2 23'41	
	Smythesdale Division	1,435½	283 6 0	0 5 8'19	
	Creswick Division	141,961	38,999 1 3	0 5 11'86	
	Gordon Subdivision	20,387	6,106 2 12	0 5 23'76	
	Steiglitz Subdivision	6,523	9,111 0 12	1 7 22'44	
	Blackwood Division and Blue Mountain South Subdivision	25,932	14,262 16 4	0 11 0	
	Ballan Subdivision	130	120 5 0	0 18 12	
	Totals	322,333½	90,140 7 21	0 5 14'68	
BEECHWORTH	Beechworth Division	3,332	2,347 14 18	0 14 2'20	
	Yackandandah Division	4,063½	1,629 19 15	0 8 0'54	
	Indigo Division	3,933½	2,167 12 5	0 11 0'49	
	Buckland Division	36,368	18,759 4 20	0 10 7'59	
	Alexandra Subdivision	2,114	1,867 1 11	0 17 15'93	
	Dry Creek Subdivision ... ..	...	...	...
	Benalla Subdivision ... ..	...	...	...
	Gaffney's Creek Subdivision	9,998	1,762 2 7	0 3 12'59	
	Wood's Point Subdivision	11,272	4,688 13 11	0 8 7'66	
	Big River Subdivision	5,200	1,546 0 0	0 5 22'70	
	Mitta-mitta Division ... ..	...	...	...
	Jamieson Subdivision	9,101½	6,396 6 2	0 14 1'34	
	Totals	85,382½	41,164 14 17	0 9 15'42	
SANDHURST	Sandhurst Division	304,587	241,288 11 8	0 15 20'24	
	Kilmore Division	866	239 0 0	0 5 12'47	
	Heathcote Division and Waranga South Subdivision	3,655	2,369 18 0	0 12 23'23	
	Waranga North Subdivision	8,321	3,341 18 20	0 8 0'78	
	Totals	317,429	247,239 8 4	0 15 13'86	
MARYBOROUGH	Maryborough Division	5,459	3,320 6 7	0 12 3'96	
	Majorca Subdivision	56	223 0 0	4 1 10'28	
	Amherst Division	3,548½	1,416 16 5	0 7 23'65	
	Avoca Subdivision	1,232½	864 14 6	0 14 0'69	
	Dunolly and Tarnagulla Divisions	10,049	3,915 9 3	0 7 19'02	
	Korong Division	8,639	4,623 14 11	0 10 16'90	
	Redbank and St. Arnaud South Subdivisions	2,466	1,155 15 10	0 9 8'97	
	St. Arnaud North Subdivision	9,059	5,507 0 20	0 12 3'79	
	Totals	40,509½	21,031 16 14	0 10 9'20	
CASTLEMAINE	Castlemaine Division	35,383	16,469 11 7	0 9 7'42	
	Fryer's Creek Division	14,840	7,797 15 0	0 10 12'22	
	Hepburn Division	43,711	15,945 0 2	0 7 7'09	
	Taradale and Kyneton Subdivision	16,045½	6,429 11 21	0 8 0'34	
	Tarrangower Division	15,795½	10,328 10 4	0 13 1'87	
	St. Andrew's Division	4,016½	4,000 18 6	0 19 22'18	
	Blue Mountain North Subdivision	65	19 10 0	0 6 0	
	Totals	129,855½	60,990 16 16	0 9 9'44	
ARARAT	Ararat Division	343	185 2 12	0 10 19'07	
	Pleasant Creek Division	60,905	56,919 15 5	0 18 23'32	
	Barkly Division ... ..	...	...	...
	Raglan Division	385	208 13 0	0 10 20'13	
	Totals	60,733	57,313 10 17	0 18 20'97	
GIPPSLAND	Omeo Subdivision ... ..	...	...	...
	Mitchell River and Boggy Creek Subdivisions	439	372 15 0	0 16 23'56	
	Crooked River Division	2,410	1,577 12 22	0 13 2'22	
	Jericho Division	1,715½	638 12 0	0 7 10'68	
	Donnelly's Creek Division	1,396½	906 4 0	0 12 23'53	
	Stringer's Creek Division	28,754	44,745 7 18	1 11 2'98	
	Russell's Creek Subdivision	153	155 17 0	1 0 8'94	
	Bendoc Subdivision	288	425 15 0	1 9 13'58	
	Tarwin Subdivision	275	211 8 17	0 15 9'05	
	Traralgon Subdivision ... ..	...	...	...
	Totals	35,430½	49,033 12 9	1 7 16'28	

No. 22.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, MULLOCK, &c., Crushed in 1873 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Minig Districts.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District ... ..	...	...	...
Beechworth District	1,420	117 6 16	0 1 15'66	
Sandhurst District	4,296	415 0 18	0 1 22'37	
Maryborough District	8,332	1,094 18 3	0 2 15'07	
Castlemaine District	10,404	1,202 5 18	0 2 7'47	
Ararat District	935	50 8 22	0 1 1'89	
Gippsland District ... ..	...	...	...
Totals	25,387	2,880 0 5	0 2 6'45	

NOTE.—From 1864 to 1873, inclusive, 1,593,594 tons of Quartz Tailings, &c., were crushed, and yielded 292,250 ozs. 12 dwts. 16 grs. of gold, being an average of 3 dwts. 16'02 grs. per ton.

No. 23.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, MULLOCK, &c., Crushed in 1873 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Minig Districts.	Minig Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	Nil	Nil	Nil	
	Southern Division				
	Buninyong Division				
	Smythesdale Division				
	Creswick Division				
	Gordon Subdivision				
	Steiglitz Subdivision				
	Blackwood Division and Blue Mountain South Subdivision				
	Totals	Nil	Nil	Nil	
BEECHWORTH	Beechworth Division	728	61 9 16	0 1 16'54	
	Yackandandah Division ... ..	...	...	...
	Indigo Division ... ..	...	...	...
	Buckland Division ... ..	...	...	...
	Alexandra Subdivision	692	55 17 0	0 1 14'74	
	Dry Creek Subdivision ... ..	...	...	...
	Benalla Subdivision ... ..	...	...	...
	Gaffney's Creek Subdivision ... ..	...	...	...
	Wood's Point Subdivision ... ..	...	...	...
	Big River Subdivision ... ..	...	...	...
	Mitta-mitta Division ... ..	...	...	...
	Jamieson Subdivision ... ..	...	...	...
	Totals	1,420	117 6 16	0 1 15'66	
SANDHURST	Sandhurst Division	1,010	48 4 0	0 0 22'90	
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision	1,286	105 4 0	0 1 15'27	
	Waranga North Subdivision	2,000	261 12 18	0 2 14'79	
	Totals	4,296	415 0 18	0 1 22'37	

No. 23.—TABLE showing the Average Yield of Gold from certain parcels of Quartz Tailings, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
MARYBOROUGH	Maryborough Division ...	tons. 1,931	ozs. dwts. grs. 128 6 0	ozs. dwts. grs. 0 1 7'89	
	Amherst Division ...	2,770	353 15 6	0 2 13'30	
	Avoca Subdivision ...	55	9 8 12	0 3 10'25	
	Dunolly and Tarnagulla Divisions ...	408	91 0 0	0 4 11'06	
	Korong Division ...	...	...	...
	Redbank and St. Arnaud South Subdivisions ...	1,678	264 11 21	0 3 3'68	
	St. Arnaud North Subdivision ...	1,490	247 16 12	0 3 7'83	
	Totals ...	8,332	1,094 18 3	0 2 15'07	
CASTLEMAINE	Castlemaine Division ...	416	34 19 6	0 1 16'34	
	Fryer's Creek Division ...	6,520	830 0 0	0 2 13'10	
	Hepburn Division ...	817	93 17 12	0 2 7'15	
	Taradale and Kyneton Subdivision ...	...	...	...
	Tarrangower Division ...	1,290	191 8 0	0 2 23'22	
	St. Andrew's Division ...	1,361	52 1 0	0 0 18'35	
	Blue Mountain North Subdivision ...	...	...	...
ARARAT	Totals ...	10,404	1,202 5 18	0 2 7'47	
	Ararat Division ...	...	...	...
	Pleasant Creek Division ...	935	50 8 22	0 1 1'89	
	Barkly Division ...	...	...	...
	Raglan Division ...	...	...	...
GIPPSLAND	Totals ...	935	50 8 22	0 1 1'89	
	Omeo Subdivision ...	...	...	...
	Mitchell River and Boggy Creek Subdivisions ...	...	...	...
	Crooked River Division ...	...	...	...
	Jericho Division ...	...	...	...
	Donnelly's Creek Division ...	Nil	Nil	Nil	
	Stringer's Creek Division ...	...	...	...
	Russell's Creek Subdivision ...	...	...	...
	Bendoc Subdivision ...	...	...	...
	Tarywin Subdivision ...	...	...	...
GIPPSLAND	Traralgon Subdivision ...	...	...	...
	Totals ...	Nil	Nil	Nil	

No. 24.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1873 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
	tons cwt.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District ...	1,262 10	3,533 6 4	2 15 23'35	
Beechworth District ...	391 9	946 7 6	2 8 8'44	
Sandhurst District ...	2,953 10	8,856 14 20	2 19 23'39	
Maryborough District ...	374 15	861 10 14	2 5 23'49	
Castlemaine District ...	257 10	654 0 12	2 10 19'15	
Ararat District ...	...	...	...
Gippsland District ...	328 6	1,035 18 0	3 3 2'56	
Totals ...	5,568 0	15,887 17 8	2 17 1'64	

NOTE.—From 1869 to 1873, inclusive, 18,719 tons 9 cwt. of pyrites, &c., were operated on, and yielded 51,609 ozs. 6 dwts. 1 gr. of gold, being an average of 2 ozs. 15 dwts. 3'35 grs. per ton.

No. 25.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1873 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Quantity operated on.	Total Produce.			Average Yield per Ton.			Remarks.
		tons cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.	
BALLARAT	Central Division	154 0	194	15	8	1	5	7 06	
	Southern Division ... ..	...	...	...	...	...	...	...
	Buninyong Division ... ..	...	...	...	...	...	...	...
	Smythesdale Division ... ..	...	...	...	...	...	...	...
	Creswick Division	1,048 10	3,258	9	14	3	2	3 72	
	Gordon Subdivision ... ..	...	...	...	...	...	...	...
	Steiglitz Subdivision ... ..	...	...	...	...	...	...	...
	Blackwood Division and Blue Mountain South Subdivision ...	60 0	80	1	6	1	6	16 50	
	Ballan Subdivision ... ..	...	...	...	...	...	...	...
	Totals	1,262 10	3,533	6	4	2	15	23 35	
BEECHWORTH	Beechworth Division ... ..	...	...	...	...	...	...	...
	Yackandandah Division	114 0	310	0	0	2	14	9 26	
	Indigo Division ... ..	...	...	...	...	...	...	...
	Buckland Division	215 0	437	18	6	2	0	17 66	
	Alexandra Subdivision ... ..	...	...	...	...	...	...	...
	Dry Creek Subdivision ... ..	...	...	...	...	...	...	...
	Benalla Subdivision ... ..	...	...	...	...	...	...	...
	Gaffney's Creek Subdivision ...	46 9	152	9	0	3	5	15 37	
	Wood's Point Subdivision ...	16 0	46	0	0	2	17	12 00	
	Big River Subdivision ... ..	...	...	...	...	...	...	...
	Mitta-mitta Division ... ..	...	...	...	...	...	...	...
	Jamieson Subdivision ... ..	...	...	...	...	...	...	...
	Totals	391 9	946	7	6	2	8	8 44	
SANDHURST	Sandhurst Division	2,939 0	8,842	4	20	3	0	4 12	
	Kilmore Division ... ..	...	...	...	...	...	...	...
	Heathcote Division and Waranga South Subdivision ... ..	...	...	...	...	...	...	...
	Waranga North Subdivision ...	14 10	14	10	0	1	0	0 00	
	Totals	2,953 10	8,856	14	20	2	19	23 39	
MARYBOROUGH	Maryborough Division	54 0	130	4	16	2	8	5 63	
	Amherst Division ... ..	...	...	...	...	...	...	...
	Avoca Subdivision ... ..	...	...	...	...	...	...	...
	Dunolly and Tarnagulla Divisions ...	...	...	...	...	...	...	...
	Korong Division ... ..	...	...	...	...	...	...	...
	Redbank and St. Arnaud South Subdivisions	82 5	189	13	0	2	6	2 77	
	St. Arnaud North Subdivision ...	238 10	541	12	22	2	5	10 10	
	Totals	374 15	861	10	14	2	5	23 49	
CASTLEMAINE	Castlemaine Division	245 10	618	0	12	2	10	8 35	
	Fryer's Creek Division ... ..	...	...	...	...	...	...	...
	Hepburn Division	12 0	36	0	0	3	0	0 00	
	Taradale and Kyneton Subdivision ...	...	...	...	...	...	...	...
	Tarrangower Division ... ..	...	...	...	...	...	...	...
	St. Andrew's Division ... ..	...	...	...	...	...	...	...
	Blue Mountain North Subdivision ...	...	...	...	...	...	...	...
	Totals	257 10	654	0	12	2	10	19 15	
ABARAT	Ararat Division ... ..	...	...	...	...	...	...	...
	Pleasant Creek Division ... ..	...	...	...	...	...	...	...
	Barkly Division ... ..	...	...	...	...	...	...	...
	Raglan Division ... ..	...	...	...	...	...	...	...
	Totals	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
GIPPSLAND	Omeo Subdivision ... ..	...	...	...	...	...	...	...
	Mitchell River and Boggy Creek Subdivisions ... ..	...	...	...	...	...	...	...
	Crooked River Division	7 0	130	0	0	18	11	10 28	
	Jericho Division ... ..	...	...	...	...	...	...	...
	Donnelly's Creek Division ... ..	...	...	...	...	...	...	...
	Stringer's Creek Division	317 6	888	18	0	2	16	0 69	
	Russell's Creek Subdivision ... ..	...	...	...	...	...	...	...
	Bendoc Subdivision	4 0	17	0	0	4	5	0 00	
	Tarwin Subdivision ... ..	...	...	...	...	...	...	...
	Traralgon Subdivision ... ..	...	...	...	...	...	...	...
	Totals	328 6	1,035	18	0	3	3	2 56	

No. 26.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of WASHDIRT Puddled and Sluiced in 1873 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Puddled or Sluiced.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District	249,814	25,032 17 0	0 2 0'09	
Beechworth District	37,899	4,617 0 15	0 2 10'47	
Sandhurst District	52,630	7,325 16 23	0 2 18'81	
Maryborough District	109,334	15,002 0 0	0 2 17'86	
Castlemaine District	308,991	9,260 3 6	0 0 14'38	
Ararat District	892	216 4 20	0 4 20'36	
Gippsland District	1,109	50 19 18	0 0 22'06	
Totals	760,669	61,505 2 10	0 1 14'81	

NOTE.—The above table does not show the total quantity of washdirt puddled or sluiced in the several localities, but only the yield of certain "washings" respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district as regards alluvial mining, the tables relating to machinery should be examined and compared.

NOTE.—The collection of the statistical information in the above table was commenced during the June quarter of the year 1872, from which period to 1873 inclusive 2,314,122 tons of washdirt were puddled and sluiced, and yielded 160,041 ozs. 12 dwts. 5 grs. of gold, being an average of 1 dwt. 9'19 grs. per ton.

No. 27.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of WASHDIRT Puddled and Sluiced in 1873 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Puddled or Sluiced.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	191,761	22,425 16 4	0 2 8'13	
	Southern Division ... ..	...	...	...
	Buninyong Division	9,779	706 18 12	0 1 10'69	
	Smythesdale Division ... ..	...	...	...
	Creswick Division	5,424	958 13 0	0 3 12'83	
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision ... ..	...	...	...
	Blackwood Division and Blue Mountain South Subdivision	42,850	941 9 8	0 0 10'54	
	Ballan Subdivision ... ..	...	...	...
	Totals	249,814	25,032 17 0	0 2 0'09	
BEECHWORTH	Beechworth Division ... ..	...	...	...
	Yackandandah Division ... ..	...	...	...
	Indigo Division	29,233	3,576 11 0	0 2 10'72	
	Buckland Division ... ..	...	...	...
	Alexandra Subdivision	8,666	1,040 9 15	0 2 9'63	
	Dry Creek Subdivision ... ..	...	...	...
	Benalla Subdivision ... ..	...	...	...
	Gaffney's Creek Subdivision ... ..	...	...	...
	Wood's Point Subdivision ... ..	...	...	...
	Big River Subdivision ... ..	...	...	...
	Totals	37,899	4,617 0 15	0 2 10'47	
SANDHURST	Sandhurst Division	52,630	7,325 16 23	0 2 18'81	
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision ... ..	...	...	...
	Waranga North Subdivision ... ..	...	...	...
	Totals	52,630	7,325 16 23	0 2 18'81	

No. 27.—TABLE showing the Average Yield of Gold from certain parcels of Washdirt—continued.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Puddled or Sluiced.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
MARYBOROUGH ...	Maryborough Division	39,730	9,436 1 12	0 4 18 00	
	Majorca Division ... ..	...	...	...
	Amherst Division	60,254	4,059 7 0	0 1 8 33	
	Avoca Subdivision	9,127	1,439 8 12	0 3 3 70	
	Dunolly and Tarnagulla Divisions ...	223	67 3 0	0 6 0 54	
	Korong Division ... ..	...	...	...
	Redbank and St. Arnaud South Subdivisions ...	...	...	...
	St. Arnaud North Subdivision ...	...	...	...
	Totals	109,334	15,002 0 0	0 2 17 86	
CASTLEMAINE ...	Castlemaine Division ... ..	...	...	...
	Fryer's Creek Division	200,970	4,041 11 8	0 0 9 66	
	Hepburn Division	69,672	4,415 4 9	0 1 6 40	
	Taradale and Kyneton Subdivision ...	...	...	...
	Tarrangower Division	38,349	800 7 13	0 0 10 01	
	St. Andrew's Division ... ..	...	...	...
	Blue Mountain North Subdivision ...	...	...	...
	Totals	308,991	9,260 3 6	0 0 14 38	
ARABAT ...	Ararat Division ... ..	...	...	...
	Pleasant Creek Division ... ..	...	...	...
	Barkly Division ... ..	...	...	...
	Raglan Division	892	216 4 20	0 4 20 36	
	Totals	892	216 4 20	0 4 20 36	
GIPPSLAND ...	Omeo Subdivision ... ..	...	...	...
	Mitchell River and Boggy Creek Subdivisions ...	...	...	...
	Crooked River Division ... ..	...	...	...
	Jericho Division ... ..	...	...	...
	Donnelly's Creek Division ... ..	...	...	...
	Stringer's Creek Division	1,109	50 19 18	0 0 22 06	
	Russell's Creek Subdivision ... ..	...	...	...
	Bendoc Subdivision ... ..	...	...	...
	Tarwin Subdivision ... ..	...	...	...
	Traralgon Subdivision ... ..	...	...	...
	Totals	1,109	50 19 18	0 0 22 06	

No. 28.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of CEMENT Crushed in 1873 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Quantity Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District	3,761	402 4 0	0 2 3 33	
Beechworth District ... ..	...	...	...
Sandhurst District	3,100	73 6 13	0 0 11 35	
Maryborough District	23,741	6,672 4 6	0 5 14 90	
Castlemaine District	35,553	2,881 12 18	0 1 14 90	
Ararat District	9,896	4,897 9 17	0 9 21 55	
Gippsland District ... ..	...	...	...
Totals	76,051	14,926 17 6	0 3 22 21	

NOTE.—The collection of the statistical information in the above table in a separate form was commenced during the June quarter of the year 1872. In previous years it has been included with quartz tailings, mullock, &c., crushed. (See tables Nos. 22 and 23.) From 1872 to 1873 inclusive, 145,351 tons of cement were crushed, and yielded 27,747 ozs. 4 dwts. 17 grs. of gold, being an average of 3 dwts. 19·63 grs. per ton.

No. 29.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of CEMENT Crushed in 1873 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions	Quantity Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division ... ..	...	...	...
	Southern Division ... ..	...	...	...
	Buninyong Division ... ..	...	...	...
	Smythesdale Division ... ..	...	...	...
	Creswick Division	3,761	402 4 0	0 2 3'33	
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision ... ..	...	...	...
	Blackwood Division and Blue Mountain South Subdivision ... ..	...	...	...
	Totals	3,761	402 4 0	0 2 3'33	
BEECHWORTH	Beechworth Division	Nil	Nil	Nil	
	Yackandandah Division				
	Indigo Division				
	Buckland Division				
	Alexandra Subdivision				
	Dry Creek Subdivision				
	Benalla Subdivision				
	Gaffney's Creek Subdivision				
	Wood's Point Subdivision				
	Big River Subdivision				
	Totals	Nil	Nil	Nil	
SANDHURST	Sandhurst Division	2,700	53 6 13	0 0 9'48	
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision	400	20 0 0	0 1 0	
	Waranga North Subdivision ... ..	...	...	...
	Totals	3,100	73 6 13	0 0 11'35	
MARYBOROUGH	Maryborough Division	23,287	6,554 4 6	0 5 15'09	
	Amherst Division ... ..	...	...	...
	Avoca Subdivision	4	5 10 0	1 7 12'00	
	Dunolly and Tarnagulla Divisions	450	112 10 0	0 5 0	
	Korong Division ... ..	...	...	...
	Redbank and St. Arnaud South Subdivisions ... ..	...	...	...
	Totals	23,741	6,672 4 6	0 5 14'90	
CASTLEMAINE	Castlemaine Division ... ..	...	...	...
	Fryer's Creek Division	28,933	2,424 16 0	0 1 16'22	
	Hepburn Division	849	90 11 0	0 2 3'19	
	Taradale and Kyneton Subdivision ... ..	...	...	...
	Tarrangower Division	5,771	366 5 18	0 1 6'46	
	St. Andrew's Division ... ..	...	...	...
	Totals	35,553	2,881 12 18	0 1 14'90	
ARARAT	Ararat Division	2,317	519 5 1	0 4 11'57	
	Pleasant Creek Division	7,579	4,378 4 16	0 11 13'28	
	Barkly Division ... ..	...	...	...
	Raglan Division ... ..	...	...	...
	Totals	9,896	4,897 9 17	0 9 21'55	
GIPPSLAND	Omeo Subdivision	Nil	Nil	Nil	
	Mitchell River and Boggy Creek Subdivisions				
	Crooked River Division				
	Jericho Division				
	Donnelly's Creek Division				
	Stringer's Creek Division				
	Russell's Creek Subdivision				
	Bendoc Subdivision				
	Totals	Nil	Nil	Nil	

No. 30.**SUMMARY.**

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ended 31st December 1873.

Mining Districts.					From			To		
					£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	0	2	6	0	15	0
Beechworth District	...	...	...	...	0	4	6	1	5	0
Sandhurst District...	...	...	...	...	0	6	0	0	9	0
Maryborough District	...	...	...	...	0	6	0	0	12	0
Castlemaine District	...	...	...	...	0	2	0	0	12	0
Ararat District	...	...	...	...	0	5	0	0	10	6
Gippsland District...	...	...	...	...	0	10	0	1	0	0
Lowest and Highest Prices					0	2	0	1	5	0

No. 31.**SUMMARY.**

PRICE of GOLD per Ounce in the several MINING DISTRICTS during the Quarter ended 31st December 1873.

Mining Districts.					From			To		
					£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	3	16	6	4	2	9
Beechworth District	...	...	...	...	3	10	0	4	2	6
Sandhurst District...	...	...	...	...	3	15	0	4	2	0
Maryborough District	...	...	...	...	3	12	0	4	2	6
Castlemaine District	...	...	...	...	3	17	0	4	0	6
Ararat District	...	...	...	...	3	10	0	4	2	0
Gippsland District...	...	...	...	...	3	5	0	3	19	6
Lowest and Highest Prices					3	5	0	4	2	9

No. 32.

QUANTITY of GOLD EXPORTED during the Year 1873, as returned by the Customs Department.

ozs.	dwts.
1,115,987	14

NOTE.—In addition to the above, 133,605 ozs. 19 dwts. New Zealand gold, and 316 ozs. 1 dwt. New South Wales gold, have been shipped from this colony during the year.

No. 33.

RETURN showing approximately the GOLD obtained from QUARTZ VEINS and ALLUVIAL WORKINGS during the Year 1873.

	ozs.	dwts.
From Quartz Veins	694,879	10
From Alluvial Workings	525,999	10
Total Gold Exported	1,220,879	0

NOTE.—The above results are but rough approximations. The Mining Surveyors and Registrars can furnish only estimates based on information afforded by the banks and gold-buyers, and on their own knowledge of the character of the workings in their districts. The check on the returns—and not a sufficient one—is that afforded by the returns of quartz and quartz tailings crushed, pyrites operated on, and washdirt and cement treated, which, however, cannot and do not comprise information respecting all the stuff put through the mills.

No. 34.

STATEMENT of VICTORIAN GOLD received at the Melbourne Branch of the ROYAL MINT during the Year 1873, as returned by the Deputy-Master of the Mint.

Gross Weight of Rough Gold.	Gross Weight of Gold Bullion.
ozs.	ozs.
28,785'35	76,105'93

NOTE.—The Mint has no evidence beyond the statement of the depositors that the above is Victorian gold. Gold was first received at the Mint on the 30th April 1872.

No. 35.

RETURN of the Number of GOLD-MINING LEASES in force on the 31st December 1873, and the Extent of GROUND LEASED.

Mining Districts.	Number of Leases.	Extent.		
		A.	B.	P.
Ballarat District	87	3,717	0	33
Beechworth District	192	3,143	2	29½
Sandhurst District... ..	1,008	7,843	3	37½
Maryborough District	377	7,175	3	33
Castlemaine District	405	4,711	0	31
Ararat District	162	2,535	0	16
Gippsland District	149	2,442	2	14
Totals	2,380	31,569	2	34

NOTE.—The total number of Gold-Mining Leases granted since the commencement is 8,947, for an area of 165,913a. 2r. 4p. The above table shows those only which were actually in force on the 31st December 1873.

No. 36.

RETURN of the Number of GOLD-MINING LEASES Issued in the Year 1873, and the Extent of GROUND LEASED.

Mining Districts.	Number of Leases.	Extent.		
		A.	B.	P.
Ballarat District	30	682	1	15
Beechworth District	50	809	1	29
Sandhurst District	160	1,606	3	2½
Maryborough District	109	1,354	2	27
Castlemaine District	156	2,257	0	13
Ararat District	119	1,886	1	24
Gippsland District	59	1,170	2	22
Totals	683	10,267	1	12½

No. 37.**SUMMARY.**

AREA of LAND held as CLAIMS under the District Bye-laws, and the portion of the same protected by Registration or by Exemption Certificates, in the several MINING DISTRICTS, on the 31st December 1873.

Mining Districts.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked, being protected by Certificates.		
	A.	B.	P.	A.	B.	P.
Ballarat District	44,235	2	33	5,149	0	19
Beechworth District	10,811	0	0	914	1	32
Sandhurst District... ..	1,703	3	0	62	0	0
Maryborough District	4,165	3	22	216	2	35
Castlemaine District	5,200	2	31	355	1	38
Ararat District	781	0	4	132	3	26
Gippsland District	2,368	1	4	91	0	0
Totals	69,316	1	14	6,921	2	30

NOTE.—The areas given in the second column are included in the first.

No. 38.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and the portion of the same not being worked, being protected by Registration or by Exemption Certificates, in the several DIVISIONS and SUBDIVISIONS, on the 31st December 1873.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of ground not being worked, being protected by Certificates.		
		A.	R.	P.	A.	R.	P.
BALLARAT ...	Central Division ...	25,145	0	0	2,639	3	25
	Southern Division ...	1,800	0	0	...	...	...
	Buninyong Division ...	2,321	2	15	409	3	38
	Smythesdale Division ...	8,047	3	15	567	2	13
	Creswick Division ...	4,768	0	0	1,164	3	0
	Gordon Subdivision ...	254	3	6	18	2	33
	Steiglitz Subdivision ...	1,190	0	0	108	0	0
	Blackwood Division and Blue Mountain South Sub-division ...	690	1	34	173	2	5
	Ballan Subdivision ...	67	3	39	66	2	25
	Totals ...	44,285	2	33	5,149	0	19
BEECHWORTH ...	Beechworth Division ...	5,310	0	0	80	0	0
	Yackandandah Division ...	950	0	0	48	0	22
	Indigo Division ...	2,320	0	0	721	0	0
	Buckland Division ...	899	0	0	43	0	0
	Alexandra Subdivision ...	250	0	0	...	...	...
	Dry Creek Subdivision ...	300	0	0	...	...	...
	Benalla Subdivision ...	...	...	...	...	...	...
	Gaffney's Creek Subdivision ...	72	0	0	1	2	10
	Wood's Point Subdivision ...	120	0	0	3	3	0
	Big River Subdivision ...	70	0	0	...	...	...
SANDHURST...	Mitta-mitta Division ...	250	0	0	...	...	...
	Jamieson Subdivision ...	270	0	0	12	0	0
	Totals ...	10,811	0	0	914	1	32
	Sandhurst Division ...	1,200	0	0	40	0	0
	Kilmore Division ...	50	0	0	...	...	...
	Heathcote Division and Waranga South Subdivision ...	453	3	0	22	0	0
	Waranga North Subdivision ...	...	...	...	...	...	...
	Totals ...	1,703	3	0	62	0	0
	Maryborough Division ...	2,528	0	0	65	0	0
	Majorca Subdivision ...	14	0	0	...	...	...
MARYBOROUGH ...	Amherst Division ...	316	0	0	100	0	0
	Avoca Subdivision ...	582	0	0	6	3	22
	Dunolly and Tarnagulla Divisions ...	225	0	0	6	0	0
	Korong Division ...	285	1	6	22	1	10
	Redbank and St. Arnaud South Subdivisions ...	103	2	9	11	0	2
	St. Arnaud North Subdivision ...	112	0	7	5	2	1
	Totals ...	4,165	3	22	216	2	35
	Castlemaine Division ...	433	2	0	29	1	12
	Fryer's Creek Division ...	700	0	0	6	0	0
	Hepburn Division ...	2,630	0	0	86	1	30
CASTLEMAINE ...	Taradale and Kyneton Subdivision ...	1,109	1	26	109	1	0
	Tarrangower Division ...	114	1	19	20	2	16
	St. Andrew's Division ...	119	1	10	17	1	4
	Blue Mountain North Subdivision ...	94	0	16	86	2	16
	Totals ...	5,200	2	31	355	1	33
	Ararat Division ...	180	0	0	7	2	0
	Pleasant Creek Division ...	530	0	0	90	0	0
	Barkly Division ...	...	...	...	...	...	...
	Raglan Division ...	71	0	4	35	1	26
	Totals ...	781	0	4	132	3	26
GIPPSLAND ...	Omeo Subdivision ...	586	3	4	...	...	...
	Mitchell River and Boggy Creek Subdivisions ...	200	0	0	...	...	...
	Crooked River Division ...	150	0	0	50	0	0
	Jericho Division ...	550	0	0	...	...	...
	Donnelly's Creek Division ...	136	2	0	...	...	...
	Stringer's Creek Division ...	234	0	0	...	...	...
	Russell's Creek Subdivision ...	320	0	0	25	0	0
	Bendoc Subdivision ...	71	0	0	3	0	0
	Tarwin Subdivision ...	120	0	0	13	0	0
	Traralgon Subdivision ...	...	...	...	...	...	...
	Totals ...	2,368	1	4	91	0	0

No. 39.

SUMMARY.

ESTIMATED VALUE of CLAIMS and LEASED LANDS in the several MINING DISTRICTS on the 31st December 1873.

Mining Districts.							Estimated Value.		
							£	s.	d.
Ballarat District ...	...	...	...	...	...	...	934,716	0	0
Beechworth District ...	...	...	...	...	...	...	383,700	0	0
Sandhurst District ...	...	...	...	...	...	...	3,670,430	0	0
Maryborough District ...	...	...	...	...	...	...	580,930	0	0
Castlemaine District ...	...	...	...	...	...	...	1,059,015	0	0
Ararat District ...	...	...	...	...	...	...	5,277,000	0	0
Gippsland District ...	...	...	...	...	...	...	525,450	0	0
Total	...	...	...	...	...	...	12,431,241	0	0

No. 40.

ESTIMATED VALUE of MINING CLAIMS and LEASED LANDS in the several DIVISIONS and SUBDIVISIONS of each Mining District on the 31st December 1873.

Mining Districts.			Mining Surveyors and Registrars' Divisions and Subdivisions.							Estimated Value.		
										£	s.	d.
BALLARAT	...	...	Central Division	...	...	...	...	...	...	156,566	0	0
			Southern Division	...	...	...	...	...	...	25,000	0	0
			Buninyong Division	...	...	...	...	...	...	30,000	0	0
			Smythesdale Division	...	...	...	...	...	...	50,000	0	0
			Creswick Division	...	...	...	...	...	...	477,500	0	0
			Gordon Subdivision	...	...	...	...	...	...	14,650	0	0
			Steiglitz Subdivision	...	...	...	...	...	...	50,000	0	0
			Blackwood Division and Blue Mountain South Subdivision	...	...	...	...	...	...	130,000	0	0
			Ballan Subdivision	...	...	...	...	...	...	1,000	0	0
			Total	...	...	...	...	...	934,716	0	0	
BEECHWORTH	...	...	Beechworth Division	...	...	...	...	...	...	150,000	0	0
			Yackandandah Division	...	...	...	...	...	...	20,000	0	0
			Indigo Division	...	...	...	...	...	...	27,300	0	0
			Buckland Division	...	...	...	...	...	...	49,900	0	0
			Alexandra Subdivision	...	...	...	...	...	...	16,000	0	0
			Dry Creek Subdivision	...	...	...	...	...	...	...	...	...
			Benalla Subdivision	...	...	...	...	...	...	12,000	0	0
			Gaffney's Creek Subdivision	...	...	...	...	...	...	33,000	0	0
			Wood's Point Subdivision	...	...	...	...	...	...	5,000	0	0
			Big River Subdivision	...	...	...	...	...	...	10,500	0	0
Mitta-mitta Division	...	...	...	...	...	...	60,000	0	0			
			Total	...	...	...	...	...	383,700	0	0	
SANDHURST	...	...	Sandhurst Division	...	...	...	...	...	...	3,600,000	0	0
			Kilmore Division	...	...	...	...	...	...	15,000	0	0
			Heathcote Division and Waranga South Subdivision	...	...	...	...	...	...	35,430	0	0
			Waranga North Subdivision	...	...	...	...	...	...	20,000	0	0
			Total	...	...	...	...	...	3,670,430	0	0	
MARYBOROUGH	...	...	Maryborough Division	...	...	...	...	...	...	218,550	0	0
			Majorca Subdivision	...	...	...	...	...	...	15,000	0	0
			Amherst Division	...	...	...	...	...	...	16,130	0	0
			Avoca Subdivision	...	...	...	...	...	...	47,950	0	0
			Dunolly and Tarnagulla Divisions	...	...	...	...	...	...	175,000	0	0
			Korong Division	...	...	...	...	...	...	36,000	0	0
			Redbank and St. Arnaud South Subdivision	...	...	...	...	...	...	12,300	0	0
			St. Arnaud North Subdivision	...	...	...	...	...	...	60,000	0	0
			Total	...	...	...	...	...	580,930	0	0	
CASTLEMAINE	...	...	Castlemaine Division	...	...	...	...	...	...	246,800	0	0
			Fryer's Creek Division	...	...	...	...	...	...	148,000	0	0
			Hepburn Division	...	...	...	...	...	...	212,385	0	0
			Taradale and Kyneton Subdivision	...	...	...	...	...	...	221,030	0	0
			Tarrangower Division	...	...	...	...	...	...	205,300	0	0
			St. Andrew's Division	...	...	...	...	...	...	23,500	0	0
			Blue Mountain North Subdivision	..	...	...	...	...	...	2,000	0	0
			Total	...	...	...	...	...	1,059,015	0	0	

No. 40.—Estimated Value of Mining Claims, &c.—continued.

Mining Districts.				Mining Surveyors and Registrars' Divisions and Subdivisions.								Estimated Value.		
												£	s.	d.
ARARAT	...	...	{	Ararat Division	...	...	...	...	...	...	...	56,000	0	0
				Pleasant Creek Division	...	...	...	...	...	...	...	5,200,000	0	0
				Barkly Division	...	...	...	...	...	...	...	1,000	0	0
				Raglan Division	...	...	...	...	...	...	...	20,000	0	0
				Total	...	...	...	...	...	...	...	5,277,000	0	0
GIPPSLAND	...	...	{	Omeo Subdivision	...	...	...	...	...	...	...	4,850	0	0
				Mitchell River and Boggy Creek Subdivisions	...	...	...	...	...	...	...	3,560	0	0
				Crooked River Division	...	...	...	...	...	...	...	6,000	0	0
				Jericho Division	...	...	...	...	...	...	...	20,000	0	0
				Donnelly's Creek Division	...	...	...	...	...	...	...	41,715	0	0
				Stringer's Creek Division	...	...	...	...	...	...	...	424,055	0	0
				Russell's Creek Subdivision	...	...	...	...	...	...	...	3,500	0	0
				Bendoc Subdivision	...	...	...	...	...	...	...	3,000	0	0
				Tarwin Subdivision	...	...	...	...	...	...	...	18,570	0	0
				Traralgon Subdivision	...	...	...	...	...	...	...	200	0	0
				Total	...	...	...	...	...	...	525,450	0	0	

No. 41.

SUMMARY.

LENGTH of WATER RACES and their APPROXIMATE COST, in the several MINING DISTRICTS, on the 31st December 1873.

Mining Districts.										Length of Races.		Approximate Cost.		
										miles	chains.	£	s.	d.
Ballarat District	...	...	...	...	...	...	...	...	...	323	54	31,042	0	0
Beechworth District	...	...	...	...	...	...	...	...	...	960	60	173,188	0	0
Sandhurst District	...	...	...	...	...	...	...	...	...	37	0	2,770	0	0
Maryborough District	...	...	...	...	...	...	...	...	...	215	47	4,612	0	0
Castlemaine District	...	...	...	...	...	...	...	...	...	203	73	15,834	0	0
Ararat District	...	...	...	...	...	...	...	...	...	51	0	4,030	0	0
Gippsland District	...	...	...	...	...	...	...	...	...	136	20	12,770	0	0
Totals	...	...	...	...	...	...	...	...	...	1,928	14	244,216	0	0

No. 42.

TABLE showing the LENGTH OF WATER RACES and their APPROXIMATE COST, in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, on the 31st December 1873.

Mining Districts.		Mining Surveyors and Registrars' Divisions and Subdivisions.				Length of Races.		Approximate Cost.			Remarks.
						miles	chains.	£	s.	d.	
BALLARAT ...	...	Central Division	...	...	...	52	0	1,326	0	0	
		Southern Division	...	...	...	...	...	...	...	...
		Buninyong Division	...	...	...	2	0	60	0	0	
		Smythesdale Division	...	...	...	27	28	820	0	0	
		Creswick Division	...	...	...	110	26	13,680	0	0	
		Gordon Subdivision	...	...	...	6	0	156	0	0	
		Steiglitz Subdivision	...	...	...	76	0	10,000	0	0	
		Blackwood Division and Blue Mountain South Subdivision	...	...	...	50	0	5,000	0	0	
		Ballan Subdivision	...	...	...	...	...	...	...	...
		Totals	...	...	...	323	54	31,042	0	0	
BEECHWORTH ...	...	Beechworth Division	...	...	...	444	0	131,200	0	0	
		Yackandandah Division	...	...	...	152	0	3,000	0	0	
		Indigo Division	...	...	...	...	...	...	...	...
		Buckland Division	...	...	...	165	60	12,418	0	0	
		Alexandra Subdivision	...	...	...	3	40	350	0	0	
		Dry Creek Subdivision	...	...	...	23	0	690	0	0	
		Benalla Subdivision	...	...	...	...	...	...	...	...
		Gaffney's Creek Subdivision	...	...	...	33	0	6,600	0	0	
		Wood's Point Subdivision	...	...	...	26	0	6,000	0	0	
		Big River Subdivision	...	...	...	21	40	4,800	0	0	
		Mitta-mitta Division	...	...	...	70	0	5,000	0	0	
		Jamieson Subdivision	...	...	...	22	0	3,100	0	0	
Totals	...	...	...	960	60	173,188	0	0			

No. 42.—TABLE showing the Length of Water Races, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Length of Races.	Approximate Cost.	Remarks.
SANDHURST	Sandhurst Division	miles chains. 37 0	£ s. d. 2,770 0 0	
	Kilmore Division ... ..	...	...
	Heathcote Division and Waranga South Sub-division ... ..	...	...
	Waranga North Subdivision ... ..	...	...
	Totals	37 0	2,770 0 0	
MARYBOROUGH	Maryborough Division ... ..	...	...
	Majorca Subdivision ... ..	...	...
	Amherst Division	196 0	4,230 0 0	
	Avoca Subdivision	14 12	360 0 0	
	Dunolly and Tarnagulla Divisions	5 35	22 0 0	
	Korong Division ... ..	...	...
	Redbank and St. Arnaud South Subdivisions	...	...
	St. Arnaud North Subdivision ... ..	...	...
	Totals	215 47	4,612 0 0	
CASTLEMAINE	Castlemaine Division ... ..	...	...
	Fryer's Creek Division	32 60	6,580 0 0	
	Hepburn Division	160 0	3,000 0 0	
	Taradale and Kyneton Subdivisions	4 40	217 0 0	
	Tarrangower Division	0 52	53 0 0	
	St. Andrew's Division	2 49	864 0 0	
	Blue Mountain North Subdivision	3 32	120 0 0	
	Totals	203 73	15,834 0 0	
ARARAT	Ararat Division	14 0	280 0 0	
	Pleasant Creek Division	32 0	2,000 0 0	
	Barkly Division	5 0	1,750 0 0	
	Raglan Division ... ..	...	...
	Totals	51 0	4,030 0 0	
GIPPSLAND	Omeo Subdivision	65 0	8,805 0 0	
	Mitchell River and Boggy Creek Subdivisions	6 0	300 0 0	
	Crooked River Division	34 0	680 0 0	
	Jericho Division	18 0	900 0 0	
	Donnelly's Creek Division	8 20	1,275 0 0	
	Stringer's Creek Division	2 0	675 0 0	
	Russell's Creek Subdivision	3 0	135 0 0	
	Bendoc Subdivision ... ..	...	...
	Tarwin Subdivision ... ..	...	...
	Traralgon Subdivision ... ..	...	...
	Totals	136 20	12,770 0 0	

No. 43.

RETURN of the NUMBER of WATER-RIGHT LICENSES in force on the 31st December 1873.

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
171	1,279 0 5	383 36 ⁵⁷ / ₁₀₀	184,310,605	95 2 13	209,571,355	979 0 0

No. 44.

THE NUMBER of WATER-RIGHT LICENSES for Gold-Mining purposes issued during the Year 1873 is as follows :—

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
10	38 3 6	17 16 ¹³ / ₁₀₀	7,872,000	6 0 25	3,325,000	53 0 0

No. 45.

SUMMARY.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1873 of Sums lodged with the Wardens' Clerks of the several Mining Districts as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Balances on hand on the 31st December 1872.	Total Deposits received during 1873.	Total Disbursements made during 1873.	Balances on hand on 31st December 1873.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballarat	120 3 8	972 4 9	557 19 6	534 8 11
Beechworth	1,655 4 0	1,258 3 0	2,115 18 0	797 9 0
Sandhurst	919 8 4	2,260 10 6	1,958 14 9	1,221 4 1
Maryborough	566 14 11	1,134 5 6	1,129 2 4	571 18 1
Castlemaine	807 6 7	1,643 0 2	1,788 14 10	661 11 11
Ararat	347 0 0	1,752 8 9	1,072 9 7	1,026 19 2
Gippsland	829 19 5	1,068 5 0	1,576 19 4	321 5 1
Totals	5,245 16 11	10,088 17 8	10,199 18 4	5,134 16 3

No. 46.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1873 of Sums lodged with the Wardens' Clerks of the several DIVISIONS of the Mining Districts as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Divisions.	Balances on hand 31st December 1872.	Total Deposits received during 1873.	Total Disbursements made during 1873.	Balances on hand 31st December 1873.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLARAT ...	Ballarat	5 6 6	200 18 9	63 12 5	142 12 10
	Bucinyong ... ..	...	...	...	...
	Smythesdale ... ..	...	22 2 6	10 13 0	11 9 6
	Creswick	59 9 0	144 0 6	116 2 6	87 7 0
	Gordon	20 19 10	23 4 0	34 10 10	9 13 0
	Steiglitz	11 10 4	370 15 0	252 17 8	129 7 8
	Blackwood	22 18 0	211 4 0	80 3 1	153 18 11
	Clunes ... ..	...	...	...	...
	Totals	120 3 8	972 4 9	557 19 6	534 8 11
BEECHWORTH ...	Beechworth	107 17 5	198 0 0	193 3 11	112 13 6
	Yackandandah	1,138 10 4	348 14 0	1,294 18 2	192 6 2
	Chiltern	8 12 2	...	8 12 2	...
	Rutherglen ... ..	...	...	...	...
	Morse's Creek	59 8 11	139 3 0	107 4 6	91 7 5
	Jamieson	93 19 5	97 0 0	132 7 4	58 12 1
	Wood's Point	118 11 3	131 0 0	134 18 10	114 12 5
	Benalla ... ..	...	...	...	...
	Alexandra	93 2 9	320 2 0	233 15 0	179 9 9
	Mansfield	0 10 1	...	0 10 1	...
	Eldorado	34 11 8	24 4 0	10 8 0	48 7 8
	Totals	1,655 4 0	1,258 3 0	2,115 18 0	797 9 0
SANDHURST ...	Sandhurst	692 11 0	1,814 11 8	1,521 10 1	985 12 7
	Kilmore	27 10 1	173 0 0	161 6 5	39 3 8
	Heathcote	143 3 5	215 9 10	188 7 2	170 6 1
	Waranga	37 15 11	30 6 0	54 8 9	13 13 2
	Raywood ... ..	...	...	...	...
	Graytown	18 7 11	...	18 7 11	...
	Eaglehawk ... ..	...	27 3 0	14 14 5	12 8 7
	Totals	919 8 4	2,260 10 6	1,958 14 9	1,221 4 1
MARYBOROUGH ...	Maryborough	256 16 7	437 0 0	430 6 3	263 10 4
	Majorca	36 4 0	37 15 0	58 0 0	15 19 0
	Talbot	54 2 0	52 0 9	77 18 2	28 4 7
	Carisbrook ... ..	...	...	...	...
	Avoca	38 13 5	116 6 9	128 16 3	26 3 11
	Dunolly	21 2 9	111 13 0	105 7 3	27 8 6
	Tarnagulla	79 14 4	20 1 0	89 10 10	10 4 6
	Korong ... ..	...	...	...	...
	Inglewood	56 8 1	205 19 0	131 6 11	131 0 2
	St. Arnaud	23 13 9	153 10 0	107 16 8	69 7 1
	Totals	566 14 11	1,134 5 6	1,129 2 4	571 18 1

No. 46.—RECEIPTS, Disbursements, and Balances in hand during the Year 1873 of Sums lodged with the Wardens' Clerks, &c.—*continued*.

Mining Districts.	Divisions.	Balances on hand 31st December 1872.	Total Deposits received during 1873.	Total Disbursements made during 1873.	Balances on hand 31st December 1873.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
CASTLEMAINE	Castlemaine	197 12 11	591 17 0	584 19 6	204 10 5
	Fryerstown... ..	142 8 2	145 5 0	193 16 10	93 16 4
	Daylesford	223 14 6	117 1 0	218 15 8	121 19 10
	Taradale	14 5 9	24 4 0	27 14 9	10 15 0
	Maldon	81 16 10	184 2 0	185 5 2	80 13 8
	Anderson's Creek	75 13 5	445 18 2	447 2 11	74 8 8
	Gisborne ... ..	...	...	...	...
	Trentham	3 4 6	...	3 4 6	...
	Kyneton	68 10 6	134 13 0	127 15 6	75 8 0
	Malmsbury... ..	...	...	...	...
	Totals	807 6 7	1,643 0 2	1,788 14 10	661 11 11
ARARAT	Ararat	62 15 8	158 6 7	140 4 7	80 17 8
	Beaufort	44 12 8	318 7 8	189 17 0	173 3 4
	Stawell	212 11 8	1,233 4 6	703 14 3	742 1 11
	Landsborough	27 0 0	42 10 0	38 13 9	30 16 3
	Totals	347 0 0	1,752 8 9	1,072 9 7	1,026 19 2
GIPPSLAND	Omeo	28 10 5	...	28 10 5	...
	Grant	57 15 2	62 0 0	118 0 2	1 15 0
	Bairnsdale	89 6 6	130 0 0	116 6 9	102 19 9
	Sale ... ..	...	48 0 0	...	48 0 0
	Stringer's Creek	594 6 1	576 5 0	1,113 18 1	56 13 0
	Corner Inlet and Foster	60 1 3	252 0 0	200 3 11	111 17 4
	Totals	829 19 5	1,068 5 0	1,576 19 4	321 5 1

No. 47.

RETURN of the QUANTITIES of GUNPOWDER Issued, &c., on the several Goldfields during the Year 1873.

Mining Districts.	Quantity in Stock at the commencement of the Year.	Quantity Issued during the Year.	Quantity in Stock at the end of the Year.
	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.
Ballarat District	9 4 2 11	47 4 3 13	9 2 1 13
Beechworth District	0 15 2 14	11 2 3 27	2 6 1 20
Sandhurst District	24 19 1 9	161 7 2 20	29 8 0 13
Maryborough District	2 3 0 9	12 1 3 4	4 2 1 13
Castlemaine District	4 2 2 10	46 3 0 24	10 3 2 8
Ararat District	4 8 0 4	27 2 0 6	5 17 2 10
Gippsland District	0 19 0 22	0 19 0 22	...
Totals	46 12 1 23	306 1 3 4	61 0 1 21

No. 48.

SUMMARY.

MINING COMPANIES REGISTERED in the Office of the Registrar-General during the Year 1873.

Mining Districts.	Number of Companies.	Number of Shares.	Nominal Capital.
			£ s. d.
Ballarat District	83	948,134	588,756 10 0
Beechworth District	13	186,920	157,500 0 0
Sandhurst District	114	2,761,982	1,469,232 0 0
Maryborough District	35	588,300	354,050 0 0
Castlemaine District	52	930,976	658,350 0 0
Ararat District	76	1,358,612	1,703,069 5 0
Gippsland District	12	136,500	128,900 0 0
Totals	385	6,911,424	5,059,857 15 0

NOTE.—For information relative to companies registered and companies wound-up previous to 1st January 1873, see Tables Nos. 48 and 49, *Mineral Statistics* 1872.

Five companies were wound up during the year, of which the aggregate nominal number of shares was 116,200, and the aggregate nominal capital £51,850.

No. 49.

MINING COMPANIES REGISTERED in the Office of the Registrar-General during the Year 1873.

Mining Districts.	Divisions and Subdivisions.	Number of Companies.	Number of Shares.	Nominal Capital.		Remarks.
				£	s. d.	
BALLARAT	Central Division	24	364,500	229,490	0 0	
	Southern Division	3	12,000	21,000	0 0	
	Buninyong Division	3	11,500	13,750	0 0	
	Smythesdale Division	4	22,840	12,600	0 0	
	Creswick Division	19	149,130	101,596	10 0	
	Gordon Subdivision	10	131,700	100,200	0 0	
	Steiglitz Subdivision	12	141,764	49,420	0 0	
	Blackwood Division and Blue Mountain South Subdivision	6	78,700	38,500	0 0	
	Ballan Subdivision	2	36,000	22,200	0 0	
	Totals	83	948,134	588,756	10 0	
BEECHWORTH	Beechworth Division	1	24,000	6,000	0 0	
	Yackandandah Division	1	20,000	10,000	0 0	
	Indigo Division	1	1,120	14, 00	0 0	
	Buckland Division ... ..	...	...	...	...
	Alexandra Subdivision	6	93,200	68,700	0 0	
	Dry Creek Subdivision	2	21,600	16,800	0 0	
	Benalla Subdivision ... ..	...	...	...	...
	Gaffney's Creek Subdivision ... ..	...	...	...	...
	Wood's Point Subdivision	1	12,000	12,000	0 0	
	Big River Subdivision ... ..	...	...	...	...
	Mitta-mitta Division ... ..	...	...	...	...
	Jamieson Subdivision	1	15,000	30,000	0 0	
	Totals	13	186,920	157,500	0 0	
SANDHURST	Sandhurst Division	110	2,718,182	1,445,632	0 0	
	Kilmore Division	3	43,200	17,600	0 0	
	Heathcote Division and Waranga South Subdivision	1	600	6,000	0 0	
	Waranga North Subdivision ... ..	...	...	...	...
	Totals	114	2,761,982	1,469,232	0 0	
MARYBOROUGH	Maryborough Division	11	104,000	86,850	0 0	
	Majorca Subdivision	2	10,000	10,000	0 0	
	Amherst Division	1	2,000	1,200	0 0	
	Avoca Subdivision	5	118,000	49,500	0 0	
	Dunolly and Tarnagulla Divisions	4	66,000	33,000	0 0	
	Korong Division	6	152,000	86,000	0 0	
	Redbank and St. Arnaud South Subdivisions	3	84,000	54,000	0 0	
	St. Arnaud North Subdivision	3	52,300	33,500	0 0	
	Totals	35	588,300	354,050	0 0	
CASTLEMAINE	Castlemaine Division	18	474,000	309,000	0 0	
	Fryer's Creek Division	4	79,000	40,750	0 0	
	Hepburn Division	6	65,100	64,600	0 0	
	Taradale and Kyneton Subdivision	11	125,076	131,050	0 0	
	Tarrangower Division	2	50,000	40,000	0 0	
	St. Andrew's Division	10	113,800	60,950	0 0	
	Blue Mountain North Subdivision	1	24,000	12,000	0 0	
	Totals	52	930,976	658,350	0 0	
ARARAT	Ararat Division	2	37,000	24,000	0 0	
	Pleasant Creek Division	72	1,286,612	1,666,469	5 0	
	Barkly Division ... ..	...	...	...	...
	Raglan Division	2	35,000	12,600	0 0	
	Totals	76	1,358,612	1,703,069	5 0	
GIPPSLAND	Omeo Subdivision	1	24,000	24,000	0 0	
	Mitchell River and Boggy Creek Subdivisions	1	2,000	2,000	0 0	
	Crooked River Division	1	2,800	4,200	0 0	
	Jericho Division ... ..	...	...	...	...
	Donnelly's Creek Division ... ..	...	...	...	...
	Stringer's Creek Division	4	36,700	50,500	0 0	
	Russell's Creek Subdivision	1	5,000	5,000	0 0	
	Bendoc Subdivision ... ..	...	...	...	...
	Tarwin Subdivision	4	66,000	43,200	0 0	
	Traralgon Subdivision ... ..	...	...	...	...
	Totals	12	136,500	123,900	0 0	

No. 50.

RETURN of MINERS' RIGHTS and BUSINESS LICENSES issued in Victoria during the Year 1873.

Place or District where issued.	Miners' Rights.										Business Licenses.				Total Receipts.												
	1 Year at 5s.	2 Years at 10s.	3 Years at 15s.	4 Years at 20s.	5 Years at 25s.	6 Years at 30s.	7 Years at 35s.	8 Years at 40s.	10 Years at 50s.	15 Years at 75s.	Consolidated Miners' Rights.		Miners' Rights ante-dated, 10s 5s.	Amount received.		6 Months at 50s.	12 Months at 100s.	Transfers at 10s.	Business Licenses ante-dated, 10s 2s per cent. on License.	Amount received.							
											Number.	Represent- ing Single Rights at 5s.		£	s.					d.	£	s.	d.				
Mining District of Ballarat ...	10,538	...	1	...	...	...	...	...	...	...	61	1,137	24	2,925	10	0	135	...	...	...	337	10	0	3,263	0	0	
Mining District of Beechworth ...	3,934	...	...	1	...	...	...	...	...	...	28	219	4	1,040	5	0	134	1	...	...	...	340	0	0	1,380	5	0
Mining District of Sandhurst ...	4,478	1	...	2	1	...	...	...	...	1	26	129	4	1,160	5	0	109	...	...	...	...	272	10	0	1,432	15	0
Mining District of Maryborough ...	2,831	...	...	...	...	...	...	...	...	...	4	50	...	720	5	0	169	...	...	...	...	422	10	0	1,142	15	0
Mining District of Castlemaine ...	3,692	...	...	3	...	...	...	...	...	...	7	43	...	936	15	0	51	...	...	...	...	127	10	0	1,064	5	0
Mining District of Ararat ...	2,263	5	1	7	1	...	...	...	...	...	16	179	18	626	10	0	20	...	...	...	...	50	0	0	676	10	0
Mining District of Gippsland ...	2,344	...	...	...	...	...	...	...	...	...	2	16	1	590	5	0	68	...	...	...	...	170	0	0	760	5	0
Melbourne	264	...	...	...	1	...	...	...	...	...	14	96	...	91	5	0	6	...	...	...	...	15	0	0	106	5	0
Totals	30,344	6	2	13	3	...	...	...	...	1	158	1,869	51	8,091	0	0	692	1	...	...	...	1,735	0	0	9,826	0	0

NOTE.—The figures in this Table do not necessarily agree with those in Table No. 51.

No. 51.

STATEMENT of the REVENUE directly derived from the Goldfields during the Year 1873, compiled from the Treasury Statements of Revenue, &c.

	£	s.	d.
Amount received for Miners' Rights	8,199 10 0
Amount received for Business Licenses	1,702 0 0
Amount received for Leases of Auriferous and Mineral Lands	15,910 16 0
Amount received for Water-right and Searching Licenses	1,013 5 0
Total	£26,825 11 0

NOTE.—Moneys received from holders of and applicants for Mining Leases under the heads of fees, fines, and forfeitures, are not included in this return.

No. 52.

TABLE showing the WAGES paid per Week for different kinds of Labor in the several Divisions and Subdivisions of each Mining District during the Year 1873, from Returns made by the Mining Surveyors and Registrars.

Mining District.	General Manager.	Legal Manager.	Mining Manager.	Engineer.	Engle-driver.	Pitman.	Blacksmith.	Carpenter.	Foreman of Shift.	Miner.	Surface Man (Laborer).	Boy.	Chinese.
BALARAT.	£6	£1 to £3	£2 10s. to £5	£3 to £4	£2	£2 10s.	£2 10s.	£2 10s.	£2 8s.	£2 2s.	£1 10s.	£1	£1 5s.
	£4 10s.	£2 to £3	£3 to £5	£2 to £6	£2 5s.	£2 5s.	£2 10s.	£3	£2 8s.	£2 2s.	£1 10s.	£1 5s. to £1 10s.	£1 11s.
	£3 5s. to £6	£1 to £5	£3 to £5	£2 11s. to £3 10s.	£2 2s. to £2 9s.	£2 2s. to £3	£2 7s. 6d.	£2 2s. to £3 6s.	£2 2s. to £2 10s.	£2 2s.	£1 10s.	£1 10s. to £1 15s.	£1 5s.
	£3 to £15 8s.	£1 to £6	£3 to £5 10s.	£3 to £4 10s.	£2 2s. to £2 14s.	£2 10s. to £3	£2 2s. to £3 10s.	£2 2s. to £3 8s.	£2 2s. to £2 10s.	£2 2s.	£1 10s.	£1 to £1 10s.	£1 5s.
BEECHWORTH.	£12	£2 10s. to £3	£3 to £4 10s.	£2 10s. to £3 12s.	£2 2s. to £2 15s.	£2 5s.	£2 10s.	£2 2s.	£2 2s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£5	£3 to £2 10s.	£3 to £4 10s.	£2 10s. to £3	£2 2s. to £2 10s.	£2 5s.	£2 10s.	£2 2s.	£2 2s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£5	£1 to £3	£1 to £5 10s.	£2 10s. to £4	£2 2s. to £2 10s.	£2 5s.	£2 10s.	£2 2s.	£2 2s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£5	£1 to £3	£1 to £5 10s.	£2 10s. to £4	£2 2s. to £2 10s.	£2 5s.	£2 10s.	£2 2s.	£2 2s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
SANDHURST.	£4	£1 10s. to £2	£4 10s. to £5	£3 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£4	£1 10s. to £2	£4 10s. to £5	£3 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£4	£1 10s. to £2	£4 10s. to £5	£3 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£4	£1 10s. to £2	£4 10s. to £5	£3 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
MARBOROUGH.	£3 to £3 10s.	£1 to £1 5s.	£4 to £5	£3 10s. to £4	£2 10s. to £2 15s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£3 10s.	£1 to £1 5s.	£4 to £5	£3 10s.	£2 10s. to £2 15s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£3 10s.	£1 to £1 5s.	£4 to £5	£3 10s.	£2 10s. to £2 15s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£3 10s.	£1 to £1 5s.	£4 to £5	£3 10s.	£2 10s. to £2 15s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
CASTLEMAINE.	£3 12s. to £7	£1 to £2	£2 10s. to £5	£3 to £4 4s.	£2 to £2 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£3	£1 to £2	£2 10s. to £5	£3 to £4 4s.	£2 to £2 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£3	£1 to £2	£2 10s. to £5	£3 to £4 4s.	£2 to £2 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£3	£1 to £2	£2 10s. to £5	£3 to £4 4s.	£2 to £2 10s.	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
ABARAT.	£5	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£5	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£5	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£5	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
GIPPSLAND.	£10	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£6	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£6	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.
	£6	£1 to £1 10s.	£3 10s. to £4	£3 10s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 10s.	£2 10s.	£2 2s.	£1 10s.	£1 10s.	£1 5s.

No. 53.

THE PRICES of MINING MATERIALS in some of the more important MINING CENTRES are as follow :—

- BALLARAT.**—Castings : Iron puddling machines, 20s. per cwt. ; lift pumps, 16 in. to 22 in., including workings and connections, 26s. per cwt. ; winding and pumping gear, 35s. per cwt. ; water-pipe, 17s. per cwt. ; stamping batteries, with iron frames and fittings connected with 10 stamps, say 10 cwt. per stamp or hammer, according to construction or design, 40 in., iron with wood framing, £50 per head. Gas-pipe, $\frac{3}{4}$ in. to 2 in., 7d. to 2s. per foot. Iron rivets, 42s. to 65s. per cwt. Chains, tested, round, sizes $\frac{5}{16}$ in. to 1 in., imported, 42s. to 65s. per cwt.; ditto, ditto, made at Ballarat, 70s. per cwt. Rope : Flat wire, 3 in. and 4 in. x $\frac{3}{8}$ in., 62s. to 80s. per cwt. ; flat hemp, $4\frac{1}{2}$ in. to 6 in., 80s. per cwt. ; flat manilla, 82s. to 84s. per cwt. ; round manilla, 74s. per cwt., different sizes. Powder, glazed blasting, 8d. per lb. Fuze : Single tape, 11s. per dozen coils ; double tape, 13s. per dozen coils. Candles, sperm, 13s. per dozen lbs. Oil : Olive, 7s. per gall. ; colza, 6s. 6d. per gall. ; castor, 6s. per gall. ; kerosene, 3s. per gall. Tallow, beef and mutton, 42s. per cwt. Quicksilver, 5s. 9d. per lb. Picks : Single-ended, driving and sinking, 48s. to 60s. per dozen ; double-ended 90s. per dozen. Pick-hilts : Hickory, 15s. per dozen ; colonial, lightwood, 8s. to 12s. per dozen. Shovels : Long or D-handled, 90s. per dozen ; Cornish, socket-handled, 52s. to 56s. per dozen. Shovel-handles : English, 18s. per dozen ; colonial, 14s. per dozen. White yarn : Flax packing, 1s. 6d. per lb. ; hemp packing, 11d. per lb. Iron : Common, 22s. per cwt. ; best Low Moor, 42s. per cwt. Leather : Colonial, for pumps, 2s. per lb. ; English, 3s. 6d. per lb. ; belt leather, colonial, 2s. 3d. per lb. Gutta-percha, sheet, for pump-clacks, 5s. per lb. ; tubing, 9s. per lb. Steel : Cast, 70s. per cwt. ; blister, 56s. per cwt. ; shear, 70s. per cwt. ; spring, 42s. per cwt. ; Stubbs' No. 2, 112s. per cwt.
- CRESWICK.**—Castings : Stamp-head and beds, 20s. per cwt. ; wheels, &c., 24s. per cwt. Hemp rope, 3 in. to 8 in., 54s. to 70s. per cwt. Blasting powder, 10d. to 1s. per lb. Fuze, 15s. per dozen coils. Candles, 11s. to 12s. per dozen lbs. Oil : Colza, 5s. 6d. to 7s. per gall. ; machine, 6s. 6d. per gall. Tallow, 37s. per cwt. Quicksilver, 4s. to 5s. 6d. per lb. Picks, 48s. to 72s. per dozen. Pick-handles, 11s to 16s. per dozen. Shovels, long-handled, 72s. to 88s. per dozen. Leather, English, for pumps, 2s. 6d. per lb. Cotton waste, $7\frac{1}{2}$ d. to 8d. per lb. Iron, common, 23s. per cwt. Steel : Cast, 74s. per cwt. ; blister, 65s. per cwt. Sheet indiarubber, 4s. to 5s. 6d. per lb.
- BRIGHT.**—Castings, plain, 33s. per cwt. Hemp rope, 93s. 4d. per cwt. ; wire rope, 72s. per cwt. Chains, small and medium, 56s. per cwt. Blasting powder, 9d. per lb. Indiarubber double tape fuze, 15s. per dozen coils. Best sperm candles, 14s. 6d. to 15s. per dozen lbs. Oil : Colza, 8s. per gall. ; Chinese, 9s. per gall. ; olive, 8s. per gall. ; kerosene, 4s. 6d. per gall. Quicksilver, 6s. 4d. per lb. Collins' Double-picks, 90s. per dozen. Pick-handles, 20s. per dozen. Best long-handled shovels (Ames'), 102s. per dozen ; best short-handled shovels, 78s. per dozen. Leather : Colonial, by the hide, 1s. 6d. per lb. ; in belting, 2s. per lb. Common iron, 37s. 4d. per cwt. Steel : Blister, 84s. per cwt. ; cast, 93s. 4d. per cwt. [Carriage, 120s.]
- WOOD'S POINT.**—Castings of white metal, 40s. to 42s. 6d. per cwt. ; extra size ditto, 100s. to 110s. per cwt. Powder, best glazed, 100s. per 100 lbs. Fuze, 15s. per dozen coils. Candles, 15s. to 16s. per dozen lbs. Oil : Castor, 10s. per gall. ; olive, 10s. per gall. Quicksilver, 4s. 6d. to 5s. 6d. per lb. Mining pick-heads, 20s. per dozen. Pick-handles, 18s. per dozen. Shovels : Long-handled, 118s. to 120s. per dozen ; short-handled, 100s. per dozen. Leather, belting and grain, 1s. 6d. per lb. Vulcanized indiarubber belting, four-ply, 4s. 3d. per foot. Iron, best wrought, 45s. per cwt. Steel : Cast, 80s. to 85s. per cwt. ; blister, 80s. per cwt. Nuts, bolts, &c., 1s. per lb. There is but one market of any extent, which is Wood's Point, for the district around ; transactions are, and have been limited, during the past year, several quotations here given must therefore be looked upon as nominal.
- SANDHURST.**—Stamper-boxes, 60s. per cwt. Stamper-heads, 18s. per cwt. Stamper-shoes, 15s. per cwt. Discs, cast-iron, 24s. per cwt. Belt pulleys, 30s. per cwt. Bar-iron, BBH, 22s. 6d. per cwt. Octagon steel, 56s. per cwt. Piping, £18 per ton. Water-pipe, English, £17 10s. per ton. Camis, 10d. per lb. Quicksilver, 5s. per lb. Sheet copper, 1s. 5d. per lb. Candles : Colonial, $11\frac{1}{2}$ d. per lb. ; sperm, 1s. 1d. per lb. Tallow, $3\frac{1}{2}$ d. to 4d. per lb. Powder : Colonial, $6\frac{1}{2}$ d. per lb. ; Hall's, 8d. per lb. Pump leather, English, 3s. per lb. Engine packing, 1s. 6d. per lb. Cotton waste, 7d. per lb. Bolts and nuts, 8d. per lb. Sheet indiarubber, 4s. per lb. Copper rivets, 3s. per lb. Nails, average, 33s. per cwt., per keg. Gratings (sieves), 1s. 6d. per square foot. Shovels : SH, 80s. per dozen ; LH, 84s. per dozen. Pick-handles, 15s. per dozen ; pick-handles, colonial, 9s. per dozen. Oil : Neatsfoot, 6s. per gall. ; castor, 5s. 6d. per gall. ; kerosene, 2s. 10d. per gall. Lithofrauteur, 16s. per case. Dynamite, 14s. per case. Fuze : Double, 11s. per dozen ; single, 9s. per dozen. Leather : Belting, single, 4s. 6d. per foot ; belting, double, 8s. per foot.
- MARYBOROUGH.**—Castings : Whim and truck wheels, 25s. per cwt. ; chains, short links, &c., 52s. per cwt. Rope, manilla 1 in. to 6 in., 65s. per cwt. ; ditto, 1 in. to 6 in., 70s. per cwt. Powder, blasting, 75s. per 100 lbs. Fuze, colonial 15s. per dozen coils. Candles, sperm, 12s. per dozen lbs. Oil : Colza, 7s. per gall. ; castor, 6s. per gall. ; kerosene 2s. 6d. per gall. ; olive, 8s. per gall. Quicksilver, 4s. 6d. per lb. Iron, best BBH, 25s. per cwt. Steel : Cast, 52s. per cwt. ; blister, 40s. per cwt. ; shear, 56s. per cwt. Leather : English belt, 2s. 4d. to 2s. 8d. per lb. ; colonial belt, 1s. 8d. to 2s. per lb. Tallow : Mutton, 31s. per cwt. ; beef, 30s. per cwt. Green hides, for buckets, 30s. each. Picks, driving and sinking, single ends, weight 3 to 6 lbs., 30s. to 60s. per dozen. Pick-hilts, colonial, 7s. 6d. per dozen. Shovels, American, 66s. to 72s. per dozen.
- CASTLEMAINE.**—Castings : Heavy, as stampers, 21s. per cwt. ; wheels, &c., 22s. 6d. per cwt. ; pipes, &c., 22s. per cwt. Iron, BBH, 23s. per cwt. Steel : Cast, 65s. per cwt. ; blister, 56s. per cwt. Rope, manilla, 74s. per cwt. Tallow, refined, 50s. per cwt. Powder, 70s. 10d. per 100 lbs. Fuze, 9s. to 13s. per dozen. Pick-hilts, 7s. 6d. to 15s. per dozen. Shovels, American, 66s. to 84s. per dozen. Oil : Colza, 7s. per gall. ; olive, 7s. 6d. per gall. ; castor, 6s. per gall. Candles, sperm, 12s. 6d. per dozen lbs. Leather : Colonial, 2s. 6d. per lb. ; English, 3s. 6d. per lb. Cotton waste, 9d. per lb.
- MALDON.**—Castings : Stamp-heads, &c., 23s. per cwt. Chains, $\frac{5}{8}$ in. to $\frac{3}{4}$ in., 6d. per lb. Rope, manilla, $7\frac{1}{2}$ d. per lb. ; wire, 4d. per lb. Blasting powder, 9d. per lb. Fuze, 13s. per dozen coils. Candles : Sperm, $11\frac{1}{2}$ d. per lb. ; tallow, $5\frac{1}{2}$ d. per lb. Tallow, 4d. per lb. Oil : Colza, 6s. 1d. per gall. ; kerosene, 3s. per gall. ; olive, 7s. 6d. per gall. Cotton waste, 8d. per lb. Picks, 1s. per lb. Pick-handles, 15s. per dozen. Pick-handles, colonial wood, 12s. per dozen. Shovels : English, 4s. 6d. each ; American, 7s. 6d. each. Leather : English butts, 3s. 6d. per lb. ; colonial, 1s. 6d. per lb. Flax, 2s. per lb. Spun yarn, 8d. per lb. Iron, wrought, 22s. 6d. per cwt. Bar steel, 56s. per cwt. Quicksilver, 5s. to 6s. per lb.
- ARARAT.**—Iron : Castings, 6d. to 8d. per lb. ; fire-bars, 32s. per cwt. ; truck-wheels, 36s. per cwt. Manilla rope, 7 inch, 80s. per cwt. Blasting powder, 9d. per lb. Fuze, 15s. per dozen. Candles, stearine, 13d. per lb. Colza oil, 7s. per gall. Tallow, 30s. per cwt. Pick-handles, she-oak, 8s. per dozen. Short-handled shovels, 66s. to 72s. per dozen. Leather, English butts, 3s. 6d. per lb. Bar iron, BBH, 26s. per cwt. Steel, cast, 70s. per cwt. Hardwood, 3 in. x 2 in. measurement, 7s. 6d. per 100 feet. ; 6 in. x $\frac{1}{2}$ in. measurement, 7s. per 100 feet.
- PLEASANT CREEK.**—Lift pumps, 12 in. to 22 in., including working and connection, 39s. per cwt. Winding and pumping gear, 45s. per cwt. Water-pipes, 32s. per cwt. Stamping batteries and iron frames, with fitting connected to say 30 stamps of 7 cwt. 2 qrs. per stamp, £50 to £70. Gas-pipe, $\frac{3}{4}$ in. to 2 in., 7d. to 2s. 4d. per foot. Iron rivets, 45s. to 50s. per cwt. Manilla rope, round, 76s. per cwt. Powder, glazed, $7\frac{1}{2}$ d. to $8\frac{1}{2}$ d. per lb. Giant powder, 5s. 3d. per lb. Fuze, double tape, coils, 13s. 6d. to 14s. per dozen. Fuze, single tape, coils, 10s. 6d. to 11s. per dozen. Candles, sperm, Brandon's, 12s. 6d. to 13s. per dozen lbs. Oil : Olive, 7s. 3d. per gall. ; colza, 7s. per gall. ; castor, 6s. 3d. per gall. ; machine, best, 7s. 6d. per gall. ; kerosene, 2s. $10\frac{1}{2}$ d. to 3s. 2d. per gall. Tallow, mutton, 42s. per cwt. Quicksilver, 6s. per lb. Picks : Single-ended, 42s. to 54s. per dozen ; double-ended, 84s. per dozen. Pick or hammer handles : Hickory, 16s. per dozen ; colonial, 9s. per dozen. Shovels : Long-handled, 66s. to 108s. per dozen ; D-handled, 60s. to 96s. per dozen ; socket-handled, Cornish, 60s. per dozen. Flax packing, 1s. 6d. per lb. Hemp packing, 10d. per lb. Bar-iron, 24s. to 32s. per cwt. Leather : English, 3s. 6d. per lb. ; colonial, 2s. 2d. per lb. Gutta-percha, sheet, 4s. 6d. per lb. Indiarubber tubing, 9s. per lb. Steel : Cast, 74s. per cwt. ; blister, 58s. per cwt. ; shear, 76s. per cwt. ; spring, 56s. per cwt.
- BENDOC.**—Oil : Castor, about 7s. 6d. per gall. ; kerosene, 3s. 6d. per gall. Quicksilver, 3s. 9d. per lb. Candles, sperm, 14s. per dozen lbs. Stamp-heads, shoes, and bottoms, 30s. to 40s. per cwt. Shovels (Collins') : Short-handled, 70s. per dozen ; long-handled, 96s. per dozen. Picks (Collins') : Hammer-headed, 70s. per dozen ; double-ended, 78s. per dozen. Pick-handles, 12s. to 16s. per dozen. Iron, 30s. to 40s. per cwt. Steel, 60s. per cwt. Powder, blasting, 1s. per lb. Rope, manilla, 5 inch, 78s. per cwt. ; ditto, $2\frac{1}{2}$ inch, 78s. per cwt.

No. 54.

TABLE showing approximately the QUANTITY and COST of TIMBER consumed for Mining Purposes in the several MINING DISTRICTS during the Year 1873, from Returns made by the Mining Surveyors and Registrars.

									£	s.	d.
BALLARAT	...	...	Firewood, &c. ...	...	...	353,419 tons	...	...	174,183	12	0
			Props and Cap-pieces ...	...	...	1,400,670 pieces	...	...	
			Laths and Slabs ...	...	...	2,667,282 pieces	...	...	
			Sawn Timber ...	...	...	4,696,338 feet	...	...	
BEECHWORTH	...	...	Firewood, &c. ...	...	...	62,980 tons	...	...	36,126	0	0
			Props and Cap-pieces ...	...	...	178,620 pieces	...	...	
			Laths and Slabs ...	...	...	593,800 pieces	...	...	
			Sawn Timber ...	...	...	307,400 feet	...	...	
SANDHURST	...	...	Firewood, &c. ...	...	...	216,375 tons	...	...	100,543	12	0
			Props and Cap-pieces ...	...	...	130,600 pieces	...	...	
			Laths and Slabs ...	...	...	245,500 pieces	...	...	
			Sawn Timber ...	...	...	875,000 feet	...	...	
MARYBOROUGH	...	...	Firewood, &c. ...	...	...	128,880 tons	...	...	45,007	15	0
			Props and Cap-pieces ...	...	...	370,053 pieces	...	...	
			Laths and Slabs ...	...	...	483,803 pieces	...	...	
			Sawn Timber ...	...	...	653,804 feet	...	...	
CASTLEMAINE	...	...	Firewood, &c. ...	...	...	154,094 tons	...	...	42,445	10	0
			Props and Cap-pieces ...	...	...	122,778 pieces	...	...	
			Laths and Slabs ...	...	...	73,945 pieces	...	...	
			Sawn Timber ...	...	...	796,897 feet	...	...	
ARARAT	...	...	Firewood, &c. ...	...	...	188,666 tons	...	...	64,239	4	0
			Props and Cap-pieces ...	...	...	47,300 pieces	...	...	
			Laths and Slabs ...	...	...	175,000 pieces	...	...	
			Sawn Timber ...	...	...	604,280 feet	...	...	
GIPPSLAND	...	...	Firewood, &c. ...	...	...	28,604 tons	...	...	18,145	17	0
			Props and Cap-pieces ...	...	...	67,875 pieces	...	...	
			Laths and Slabs ...	...	...	139,500 pieces	...	...	
			Sawn Timber ...	...	...	249,325 feet	...	...	
Total Cost									£480,691	10	0

No. 55.

THE FOLLOWING PARTICULARS, which have been collected by the Mining Surveyors and Registrars, relate to the weight and cost of the Stamp-heads and Shanks or Lifters made use of in some of the principal Gold Mines in the several Mining Districts, and supply additional information connected with the process of crushing Quartz during the Year 1873.

In the BALLARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 3 cwt. 2 qrs. to 8 cwt 2 qrs., and the cost is from 18s. to £5 per cwt. The height the stamp-head falls ranges from 6 to 10 inches. The number of strokes made per minute is from 60 to 83. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 3 tons 7 cwt. The number of holes per square inch in the gratings used is from 64 to 196. The horse-power required to work each stamper is from 1 to 1.33. The quantity of water used per stamp-head in crushing varies from 240 gallons to 566 gallons per hour. The quantity of mercury used in the ripples per stamper is from 9 to 40 lbs. The quantity of mercury lost per stamp-head per week is from 0.50 oz. to 30 ozs.

In the BEECHWORTH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 3 cwt. 2 qrs. to 9cwt., and the cost is from £6 to £20 per cwt. The height the stamp-head falls ranges from 7 to 12 inches. The number of strokes made per minute is from 56 to 75. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons 10 cwt. The number of holes per square inch in the gratings used is from 90 to 144. The horse-power required to work each stamper is from 1 to 1.50. The quantity of water used per stamp-head in crushing varies from 115 gallons to 400 gallons per hour. The quantity of mercury used in the ripples per stamper is from 10 to 68 lbs. The quantity of mercury lost per stamp-head per week is from 0.50 oz. to 5 ozs.

In the SANDHURST MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. to 7 cwt., and the cost is from 18s. to £1 per cwt. The height the stamp-head falls ranges from 7 to 12 inches. The number of strokes made per minute is from 64 to 70. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 3 tons. The number of holes per square inch in the gratings used is from 64 to 180. The horse-power required to work each stamper is from 1 to 1.25. The quantity of water used per stamp-head in crushing varies from 200 to 255 gallons per hour. The quantity of mercury used in the ripples per stamper is from 15 to 36 lbs. The quantity of mercury lost per stamp-head per week is 1 oz.

In the MARYBOROUGH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. to 8 cwt., and the cost is from £1 to £1 17s. 6d. per cwt. The height the stamp-head falls ranges from 6 to 12 inches. The number of strokes made per minute is from 45 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 5 cwt. to 2 tons 10 cwt. The number of holes per square inch in the gratings used is from 70 to 196. The horse-power required to work each stamper is from 0.75 to 1.50. The quantity of water used per stamp-head in crushing varies from 300 to 600 gallons per hour. The quantity of mercury used in the ripples per stamper is from 12 to 35 lbs. The quantity of mercury lost per stamp-head per week varies from 2 to 24 ozs.

In the CASTLEMAINE MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. 2 qrs. to 8 cwt. 3 qrs., and the cost is from 17s. to £1 5s. per cwt. The height the stamp-head falls ranges from 4 to 15 inches. The number of strokes made per minute is from 50 to 80. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton, to 3 tons 10 cwt. The number of holes per square inch in the gratings used is from 75 to 144. The horse-power required to work each stamper is from 0.66 to 2.50. The quantity of water used per stamp-head in crushing varies from 135 to 666 gallons per hour. The quantity of mercury used in the ripples per stamp-head is from 4 to 25 lbs. The quantity of mercury lost per stamp-head per week varies from 0.5 to 5 ozs.

In the ARARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. to 8 cwt., and the cost is from 17s. 6d. to £2 12s. per cwt. The height the stamp-head falls ranges from 8 to 10 inches. The number of strokes made per minute is from 38 to 70. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons. The number of holes per square inch in the gratings used is from 120 to 256. The horse-power required to work each stamper is from 0.90 to 1.25. The quantity of water used per stamp-head in crushing varies from 220 to 700 gallons per hour. The quantity of mercury used in the ripples per stamper is from 18.75 to 70 lbs. The quantity of mercury lost per stamp-head per week is from 0.90 to 8 ozs.

In the GIPPSLAND MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. to 9 cwt., and the cost is from £1 12s. to £8 per cwt. The height the stamp-head falls ranges from 6 to 10 inches. The number of strokes made per minute is from 40 to 86. The quantity of quartz crushed per head per diem of 24 hours varies from 15 cwt. to 2 tons 16 cwt. The number of holes per square inch in the gratings is from 80 to 168. The horse-power required to work each stamper is from 0.80 to 2. The quantity of water used per stamp-head in crushing varies from 40 to 450 gallons per hour. The quantity of mercury used in the ripples per stamper is from 8 to 45 lbs. The quantity of mercury lost per stamp-head per week varies from 1 to 8 ozs.

MINERALS OTHER THAN GOLD.

No. 56.

RETURN of the NUMBER of LEASES in force on the 31st December 1873 for the purpose of Mining for
METALS AND MINERALS OTHER THAN GOLD.

Names of Metals and Minerals.	Number of Leases.	Area.		
		A.	R.	P.
Antimony	23	579	0	20
Coal	19	9,596	2	15
Copper, and the Ores of Copper	1	625	0	12
Flagging	1	9	2	30
Galena and Copper	1	17	0	25
Kaolin	1	5	2	28
Lignite	1	475	2	10
Silver	3	424	1	36
Silver and Lead	2	605	0	32
Silver, Lead, and Copper	1	443	3	34
Slate	3	362	0	13
Slate and Flagging	4	68	2	21
Slate and Freestone... ..	3	333	0	37
Iron	1	42	2	23
Red Ochre Clay	1	2	0	14
Tin, and the Ores of Tin	30	2,017	0	25
Totals	95	15,518	1	14

No. 57.

RETURN showing the NUMBER of LICENSES to SEARCH for METALS OR MINERALS OTHER THAN GOLD
issued during the Year 1873.

Names of Metals and Minerals.	Number of Licenses.	Extent of Ground held under such Licenses.	
		Acres.	
Coal	50	29,795	
Galena	1	320	
Slate	1	50	
Tin	1	640	
Coal and Kerosene Shale	1	640	
Coal, Lignite, and Shale	1	640	
Copper	4	1,060	
Copper and Galena	1	403	
Copper and Lead	1	261	
Silver, Lead, and Copper	8	3,445	
Silver and Lead	1	320	
Gypsum	3	454	
Ores of Iron	1	200	
Opal	3	164	
Totals	77	38,392	

NOTE.—Fees are charged for Searching Licenses in accordance with the following scale:—

	£	s.	d.
For an area exceeding 320 acres, but not exceeding 640 acres, per annum ..	..	10	0
" 160 " " 320 " " ..	..	5	0
" 80 " " 160 " " ..	..	2	10
" 64 " " 80 " " ..	..	1	5
And for any area not exceeding 64 acres ..	..	1	0

(Vide Notice published in the Government Gazette of 2nd December 1864.)

No. 58.

RETURN of the NUMBER of MINERAL LEASES issued in the Year 1873, and the EXTENT of GROUND
LEASED.

Names of Metals and Minerals.	Number of Leases.	Area.		
		A.	R.	P.
Antimony	12	356	0	13
Coal	11	4,475	2	17
Flagging	2	12	1	39
Galena and Copper	1	17	0	25
Silver, Lead, and Copper	1	443	3	34
Slate and Flagging	3	54	3	36
Iron	1	42	2	22
Red Ochre Clay	1	2	0	14
Tin, and the Ores of Tin	65	3,312	1	1
Totals	97	8,717	1	1

METALLIFEROUS MINERALS, COALS, LIGNITE, CLAYS, SLATES, AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

According to the returns made to the Department, the following quantities have been raised :—

—				Silver Ores.	Silver.	
				tons	ozs.	dwt.
Previously—up to 31st December 1872 ...	...	...	...	11,348	19,203	8
From 1st January to 31st December 1873	...	...	...	940	5,516	0
Totals ...	...	...	...	12,288	24,719	8

The following statement of Exports has been supplied by the Customs Department :—

Year.						Silver Ores.	Silver.	
						tons cwt.	ozs.	dwt.
1861	...	...	...	...	...	10 6	...	...
1864	...	...	...	...	...	...	4,207	15
1865	...	...	...	...	...	...	4,954	0
1867	...	...	...	...	...	...	366	2
1868	...	...	...	...	...	...	5,604	9
1871	...	...	...	...	...	...	236	0
1873	...	...	...	...	...	...	Nil	...
Totals ...	...	...	...	...	...	10 6	15,368	6

Silver mining operations in the St. Arnaud District during the year 1873 are thus reported on by Mr. James Rowan, the Warden's Clerk at St. Arnaud :—

"The yields of silver from the undermentioned mines may be tabulated as follows :—

—		Quartz Raised.	Smelted Gold.			Value.	Silver.	Value.		
		tons	ozs.	dwt.	grs.	£	ozs.	£	s.	d.
Wilson's Hill	...	1,581	1,350	0	0	5,162	450	112	0	0
Rising Star	...	3,117	1,141	0	0	4,364	285	71	5	0
Chrysolite Hill	...	1,237	985	10	4	3,326	53	14	0	0

NOTE.—The ore was not treated alone for the extraction of silver.

"The London and St. Arnaud Gold and Silver Mines Company Limited raised 940 tons since May 1873, and reduced 940 tons since September last. Quantity of mixed metal extracted therefrom, estimated value £1550. The mixed metal consisting of silver and gold, with a percentage of lead and copper, was forwarded to London for separation, hence the exact quantity of silver extracted cannot be given. These mines are now in full operation, and mill steadily at work, crushing an average of 100 tons per week, and employing from 60 to 70 men. The stone now being raised is from the 200-foot level, and is of fair average quality."

"Wilson's Hill.—The above quartz was raised from 380-foot level, and yield edabout 25 per cent. of silver, which increased about 6½ per cent. for every 100 feet in depth. This mine has lately been let to a tribute company, who are at present sinking an engine shaft to the depth of 450 feet, and is considered the leading mine in the district.

"Rising Star.—The above quartz was raised from 400-foot level, and yielded about 20 per cent. silver, which increased about 5 per cent. for every 100 feet in depth. This mine has also been let to a tribute company, who are now working at 460-foot level with good prospects."

"Chrysolite Hill Company have for the past two or three months ceased to raise quartz, and are at present sinking a shaft to the depth of 500 feet, which, when reached, it is intended to open out. This will then be the deepest mine at St. Arnaud.

The following remarks are taken from the annual returns of lessees' operations on lands occupied for silver mining purposes :—"A new shaft is being sunk, now down 340 feet, no silver ore raised." Another return states :—"Prospecting for silver ore, hitherto no stone worthy of treatment has been met with."

A sample of vein-stuff was received at the Office of Mines for examination, and was found to contain silver and gold in combination with the sulphides of copper, iron, lead, and zinc. The sample was got from the Victoria Reef, Maldon, at a depth of 180 feet from the surface, where the reef is said to be 9 feet in thickness.

From one of the mines at Buchan a sample was sent for assay, and was reported by Mr. Cosmo Newbery—the Analyst to the Department of Mines—to contain silver at the rate of 2 ozs. 9 dwts. per ton of ore.

The Mining Surveyor at St. Arnaud reported, respecting silver mining, for the quarter ended 31st March 1873, as follows :—"Work has been resumed at the silver mines. The machinery at the old Silver Mines Reef is being put in order, and the shaft, which is 324 feet deep, cleared out preparatory to sinking the same still further. The whim has been removed from Sebastopol Hill and placed at the Rotten Reef shaft, which has been sunk an additional 100 feet. A complete alteration is being made in the crushing plant; a dry process is to be adopted. Roasting furnaces are being constructed at a cost of £1500," and for the three succeeding quarters respectively, as under :—"At the Silver Mines machinery is still being erected. The furnaces have been completed at a cost of £1600. The dry crushing battery and elevating machine will be completed in a month or six weeks. The Rotten Reef, 2 feet 6 inches wide, and said to contain promising stone, is being worked at the 100-foot and 200-foot levels. Ore is also being taken out on Walker's old ground (Sec. H); so that on the completion of the machinery crushing will at once be commenced. At the Silver Mines 185 tons of quartz have yielded 5200 ozs. of mixed metal, the estimated value of which is £565. Sixty-five tons of quartz from the Excelsior claim (No. 1 South Silver Reef) has yielded 250 ozs. of mixed metal, worth £296. Two tons of sand from the same reef yielded 110 ozs. of mixed metal."

On the 31st December there were three leases in force of mines of silver, for an aggregate area of 424a. 1r. 36p.; two leases in force for silver and lead, for an area of 605 acres and 32 perches; and one lease for silver, lead, and copper, over an area of 443a. 3r. 34p. During the past year 3145 acres were comprised in eight licenses to search for silver, lead, and copper, and 320 acres were occupied under search-license for silver and lead.

TIN.

The following statement of Exports has been received from the Customs Department :—

TIN ORE.			TIN.		
	tons	cwt.		lbs.	
Previously—up to 31st December 1872	3,831	16	Previously—up to 31st December 1872	139,648	
From 1st January to 31st December 1873	174	16	From 1st January to 31st December 1873	109,312	
Total	4,006	12	Total	248,960	

The following information, relative to the quantity of tin ore raised in the Beechworth division, has been supplied by Mr. Walter Butler, Warden, &c., at Beechworth :—

“Tin (black sand) raised :—

	tons	cwt.
Eldorado	133	11
Woolshed, Sheepstation, and Pilot Creeks, &c.	99	11
Total	233	2

“Tin smelted, 115 tons 11 cwt., per centage, Eldorado, 75 per cent. Mixed lots 30 to 72 per cent.

“Smelted tin shipped to England, 51 tons 12 cwt. Price £120 to £134.

“Smelted tin sold in colony, 48 tons. Price £112.

“Black sand shipped to England, 92 tons. Price £54 to £75.”

The information obtainable in the Mitta Mitta Division, Koetong, is not so reliable as that for Beechworth. In fact the returns from the largest producer cannot be obtained here.

The quantity reported as being raised (exclusive of the above-named producer) is 44 tons 1 cwt. But the quantity smelted exceeds that amount considerably, one smelter here (Beechworth) giving 41 tons 11 cwt., and another about 16 tons. The per centage ranges from 55 to 70. The price is about the same as that for Beechworth. (The producer mentioned raised 21 tons 5 cwt. 1 qr. 4 lbs. of tin ore.)

A sample of nearly pure cassiterite, containing only a few grains of titaniferous iron, was forwarded to the Office of Mines for examination from Dry Creek, Upper Murray. It yielded 71 per cent. of tin.

The lessee of a claim on the Burrawa Creek reports that he is prospecting his ground, but has not yet discovered payable wash. He had raised during the last quarter of the year 6 cwt. of tin.

The Warden at Yackandandah says :—“That tin ore is the only mineral of which any discovery has been made in his division during 1873.” He has forwarded a return showing that 43 tons 11 cwt. of tin ore had been raised. This does not include all that had been got, but only the yields of tin ore obtained by certain parties of miners.

At Koetong a lessee reports having raised 3 tons 10 cwt. 1 qr. 14 lbs. of tin ore, which was sold in four separate parcels at prices ranging from £49 to £65.

The manager of one of the tin mining companies at Koetong reports that he has had raised 10 tons 8 cwt. 0 qrs. 7 lbs. of tin ore.

At Dry Forest Creek, Koetong, a lessee reports that as yet they have been merely prospecting, and have not found payable ground. He says that his party had raised 5 cwt. of tin ore.

The manager of the Koetong Stream Tin Mining Company states :—“That the washdirt raised by the company was put through one cleaning machine and yielded 21 tons 5 cwt. 1 qr. 4 lbs. of tin ore.

At the Cudgewa Creek a lessee reports having obtained by sluicing 14 tons of tin ore.

At Koetong a lessee reports having raised 19 cwt. of tin during the year.

A sample of grey stream tin ore from the Cudgewa Creek was found to contain 68 per cent. of tin, and a sample from the Burrowa Creek, another tributary of the Murray River, contained 71 per cent. of tin.

An assay of a sample of black sand, obtained from the La Trobe River, showed it to contain 40 per cent. of tin.

A new discovery of stream tin ore was recently made about six miles south of Mount Fatigue, near Corner Inlet. Two samples from this place were forwarded to the Office of Mines; one was fine grained and contained 53 per cent. of tin, and the other was coarse grained and gave upon assay 74 per cent. of tin.

Mr. R. Arrowsmith, the mining surveyor at Chiltern, reports that a small quantity of tin ore, about a ton, was obtained during the year from the alluvial claim of the Sons and Doma Consols Tribute Company on the Chiltern Lead.

The lessees' operations at the La Trobe River are reported to have been retarded in consequence of the want of a good track. Two men were at work and 3 cwt. of tin ore had been raised, but the lessees state that they had not yet had time to get the ore smelted.

The lessees of a tin lease on the La Trobe River report having raised 5 cwt. of tin ore during the last quarter of the year, of which quantity 3 qrs. 10 lbs. was smelted and yielded 1 qr. 10 lbs. weight of tin. They add the following remarks :—“The small quantity of ore raised and smelted is due to the work, up to the present time, having been merely preliminary. The produce being only the result of a trial in a small blast furnace erected for experimental purposes, and the ore raised is from twenty different shafts on the lease, sunk in order to ascertain the best position for commencing operations. A great drawback was the difficulty in sending provisions to the men, so that a large amount of time was lost in endeavouring to find a new and short track to Berwick.”

The Mining Registrar for the Russell's Creek division reported, for the quarter ended 31st December 1873, as follows :—
* * “Several parties are out prospecting near the Heads of the La Trobe and Tangil rivers. One party, Messrs. Johnson and Wells, inform me they can get a little gold and tin in every place they have tried, but the country is very scrubby and difficult to prospect.”

A sample of black sand was sent to the Office of Mines for examination from a locality near Mansfield. Mr. Cosmo Newbery reported on it as follows :—“The sample consists of tin and iron sands. Upon assay it gives 15 per cent. of tin. The tin grains contain a large per centage of iron, so that it is impossible to purify the ore by mechanical means, and the tin produced by smelting is alloyed with iron, which will of course reduce the value of the tin.”

The Warden at Foster reports as follows :—“Small quantities of stream tin were obtained in the month of November last, near Muddy Creek, about ten miles from Foster. As far as I am able to ascertain the prospects were considered encouraging, and it was intended to obtain search licenses and thoroughly test the ground.”

The Mining Registrar at Omeo makes the following remark in his report for the quarter ended 31st March 1873 :—“Tin ore of good quality, and in quantities supposed to be payable, has been discovered by a party of prospectors from Omeo, in the Pilot River, just over the border of the district, but which runs towards the Victorian boundary.”

There were (30) thirty leases in force at the end of the year for the purpose of mining for tin, on an area of 2,017 acres and 25 perches.

Sixty-five (65) leases were issued during the year, for an area of 3,312 acres 1 rood and 1 perch, to mine for tin.

A license to search for tin ore, over an area of 640 acres, was issued during the year.

At Bright the stanniferous washdirt is found at too great a depth to be worked without the aid of expensive machinery, which has not yet been erected.

COPPER.

According to the returns received the following quantities of copper ore have been raised:—

Previously—up to 31st December 1872 ...	...	...	...	...	tons. 1,255
From 1st January to 31st December 1873	...	...	...	...	Nil
Total ...	...	...	...	...	1,255

The following statement of Exports has been received from the Customs Department:—

					Copper.	Copper Ore.
					tons cwt.	tons cwt.
Previously—up to 31st December 1872 ...	...	...	...	...	49 7	36 1
From 1st January to 31st December 1873	...	...	...	...	0 5	Nil
Totals ...	...	...	...	...	49 12	36 1

The lessees of a lease, situated at Neal's Creek, Buchan, states that they are prospecting for copper, but have not as yet raised any.

Mr. Bernhard Smith, warden, &c., at Stawell, reports as follows:—"No other metals than gold have been opened out in this district during 1873. Some talk was made about copper ore being found on the Grampians some time since, and a lease to work ground for the purpose of extracting that metal was obtained; but I think nothing has been done, though small specimens of malachite and other forms of ore are to be occasionally found near to Golton-golton, at the north-west end of the Grampian Range." The lessees of a mine on the Thompson River report having smelted 15 tons 10 cwt. of copper ore, and obtained from it 10 tons of regulus, supposed to contain from 65 per cent. to 90 per cent. of pure copper.

At the end of the year there were 625 acres and 12 perches of land held under lease to mine for copper; 17 acres and 25 perches to mine for copper and galena; and 443 acres 3 roods 34 perches to mine for copper, lead, and silver.

One license was issued during the year to search for copper and galena, on an area of 403 acres; one license to search for copper and lead, over an area of 261 acres; and four licenses to search for copper alone, over an area of 1060 acres.

Native copper has been found at 350 feet in depth, in a reef on Wilson's Hill, St. Arnaud.

ANTIMONY.

According to returns received, the following quantities have been raised:—

ANTIMONY ORE.					tons cwt.
Previously—up to 31st December 1872 ...	...	...	...	...	9,181 14
From 1st January to 31st December 1873	...	...	...	...	1,428 3
Total ...	...	...	...	...	10,609 17

The following statement of Exports has been received from the Customs Department:—

					Antimony Ore.	Antimony Regul.	Antimony.
					tons cwt.	tons cwt.	tons cwt.
Previously—up to 31st December 1872 ...	...	...	...	...	7,159 10	239 2	316 15
From 1st January to 31st December 1873	...	...	...	...	677 12	32 3	113 6
Totals ...	...	...	...	...	7,837 2	271 5	430 1

Mr. Warden Cogdon states that, on the 26th July, an application for a mineral lease of certain ground, situate at Snowball Hill, near Sandhurst, was lodged at his office, in which the applicant states that one of the minerals intended to be worked is antimony; but nothing has yet transpired to justify the belief that it will be found in payable quantities.

The legal manager of the Costerfield Gold and Antimony Mining Company, Heathcote, reports that 461 tons of antimony ore were raised during the first quarter of the year, 411 tons during the second quarter, 110 tons during the third quarter, and 212 tons during the last quarter, or a total during the year of 1194 tons.

The Central Costerfield Antimony Company's operations, during the year, were confined to sinking a shaft, and to other permanent works on one of their leases. From another area held under lease they raised 5 tons 6 cwt. 3 qrs. of antimony ore.

The lessees of two antimony mines, situated near Heathcote, report having been engaged in sinking two shafts; one of which was sunk to a depth of about 150 feet, and a drive put in some 50 feet.

The lessees of an antimony mine, also near Heathcote, report having raised 15 tons 3 cwt. of antimony ore, which was not smelted by them, but sold in the state in which it was raised from the claim. Another lessee reports having raised 13 tons 6 cwt. 3 qrs. of antimony ore during the year.

A sample of antimony ore from a lode at Wapantake Creek, near McIvor, which is said to be 1 foot 6 inches in width, was received by the Mining Department. Mr. Cosmo Newbery reported on it as follows:—"Sulphide of antimony with shale, gives upon assay 26 per cent. of metallic antimony. This ore might easily be dressed so as to yield from 50 to 60 per cent."

The Mining Surveyor of the St. Andrew's division reported for the quarter ended 31st December 1873 as follows:—"At Ringwood the mineral lease for antimony is being developed, and there are now upwards of 200 tons of this mineral upon the bank, waiting transit to market."

A sample of antimony ore was forwarded to the Office of Mines from Dunolly, where an antimony lode occurs in Munster Gully. An examination of it was made by Mr. Cosmo Newbery, who reported on it as follows:—"The sample consists of a mixture of oxide and sulphide of antimony with quartz, and is probably from the surface of a lode. The specimens forwarded are not in a marketable condition, containing, as they do, nearly 50 per cent. of quartz. By careful dressing, however, the ore might be made to yield about 60 per cent. of antimony."

Seven hundredweights of antimony ore were raised from the mine of the Munster Gully Antimony Company, Dunolly, assays of which gave from the valentinite 62½ per cent., 63 per cent., and 64 per cent. of regulus. The lessees further report:—"Having worked for about four or five months, and sunk a shaft on the underlie to a depth of 50 feet through hard metamorphic rock. The vein of ore averages 4 inches."

Mr. Warden Wyatt reports that—"In the Wood's Point division nothing has been found or worked in either antimony ore or sulphur. At the Big River, Enoch's Point, some fine specimens of antimony have been on view for two years past, and are now at Mr. Bain's store there."

The Mining Registrar at Blackwood reports that—"A claim situated in the vicinity of Barry's Reef, and comprising an area of 20a. 1r. 35p., is registered as the Blackwood Gold and Antimony Company's claim, but little work has been done to develop the mine during the year."

The manager of one of the antimony mines, at Box Hill, Nunawading, forwarded to the Office of Mines a statement of the operations at the mine during the year, from which it appears that during the last quarter they raised 8 tons of sulphide of antimony, and 10 tons of oxide of antimony. These 18 tons of ore were got from a depth of from 80 to 100 feet from the surface, and the prospect at the close of the year was very good.

The Mining Registrar at Kilmore stated in his June quarterly report for 1873— * * "Murchison and Co. have brought to town some fine samples of antimony, obtained in their claim about five miles west of Yea."

The Mining Surveyor of the Big River subdivision stated in his quarterly report for June 1873— * * "I understand that a company—foreign to the district—has determined on prospecting a vein known as the Antimony Reef, situated on Specimen Creek, and from which some excellent antimony ore was raised four or five years ago. The vein was small where opened, but the lode appeared from surface indications to be a wide granite dyke, with much quartz."

And he makes the following remarks respecting the same lode, in his September report:—"On Specimen Creek a reef, known as the Antimony Reef, a wide granite dyke showing much quartz with a small antimony vein, is being further prospected, very little having been hitherto done, though the value of the ore was ascertained to be payable some years ago."

And in his report for the last quarter of the year—"Antimony is being obtained in small but payable quantities at Specimen Creek, by Messrs. Longley."

Twenty-three leases were in force on 31st December for antimony, the aggregate area being 579 acres and 20 perches. Twelve leases for antimony were issued during the year, for an aggregate area of 356 acres and 13 perches.

ZINC AND THE ORES OF ZINC.

Mr. A. W. Howitt, Warden, &c., Bairnsdale, reports—"That a prospector at Combyingbar Creek has forwarded to him samples of minerals obtained there, amongst which he found metallie zinc, possibly native, respecting which he was making further enquiries of the prospector."

A sample of vein stuff from the Hibernia Reef, Golden Square, Sandhurst, was sent to the Office of Mines. It was got from a series of spurs which dip north, and are about 18 inches apart, in a level at 250 feet beneath the surface. An examination of the sample showed that it contained zinc blende, iron pyrites, and galena, but the sample was not sufficient for an assay.

Blende—*sulphide of zinc*—occurs in many auriferous reefs, in small quantities.

Zinc blende occurs with galena and pyrites in a lode near Buchan.

LEAD.

According to returns received, it appears that the following quantities of lead ore have been raised :—

	tons.
Previously—up to 31st December 1872	245
From 1st January to 31st December 1873	162
Total	407

The following statement of Exports has been received from the Customs Department :—

	Lead Ore.		Lead.	
	tons.	cwt.	tons.	cwt.
Previously—up to 31st December 1872	6	5	Nil	
From 1st January to 31st December 1873	60	13	0	1
Total	66	18	0	1

Mr. John Grimes Peers, Mining Surveyor and Registrar for the Mitchell River subdivision in the Gippsland Mining District, makes the following remarks respecting the Galena Mines, at Buchan, in his report for the quarter ended 30th June 1873 :—

"The Buchan Lead and Silver Mining Company.—For several weeks during the past quarter this company's works have been suspended, pending the treatment of a quantity of ore. The result being satisfactory, work has been resumed, and a tunnel is now being driven to intersect the lode at water-level, which will be reached in about 40 feet from present face. A shaft is also being sunk on the northern side of this company's lease on a copper lode.

"The Murindal Silver and Lead Mining and Smelting Company Limited.—During the past quarter this company have erected a number of buildings on their leased ground, viz., smelting house, blacksmith's shop, powder magazine, &c. There has been a quarry opened above high-water level, along the run of galena, about 30 yards long, 5 yards wide, and about 8 yards deep, out of which a considerable quantity of galena has been taken, which will probably yield from 50 to 60 per cent. of lead and a little silver. There has also been a drive put in at the south-west corner of the quarry for a distance of 15 feet, out of which some very good ore has been obtained. The company intend to prospect their mine thoroughly.

"The Potosi Company's mine is not being worked at present.

"The foregoing information has been supplied me by the managers of the several companies."

The mining manager of the Buchan Lead and Silver Mining Company forwarded to the Office of Mines a statement of operations carried on at the mine during 1873, from which it appears that the quantity of galena raised was 100 tons; the quantity smelted, 15 tons; the produce, 5 tons. About 20 tons of ore have been shipped to England as an experiment. During the last nine months a tunnel has been driven so as to intersect the lode at the water-level. The tunnel has been driven about 240 feet, and appears to be now near the lode, as some good ore was seen during the last fortnight's work (at the close of the year). No smelting works will be erected until the lode is proved in the tunnel. About 50 tons of ore were sent to Melbourne during the first quarter of the year."

The lessee of a mineral lease at Neal's Creek, Buchan, reports that the operations so far have been confined to prospecting for galena and copper. No mineral has been raised.

A sample of vein stuff from a lode near Buchan was sent to the Office of Mines for examination. It was found to consist of quartz containing galena, pyrites, and zinc blende. The ore, when concentrated by washing, gave 17·5 per cent of lead and 2 ozs. 9 dwts. of silver per ton. The manager of the company reports that no more than prospecting has yet been done.

The manager of another silver and lead mining company in Gippsland states that he has raised during the year 62 tons of galena, that 40 tons have been smelted, and that 10 tons 12 cwt. 1 qr. 26 lbs. of regulus were obtained.

The Mining Registrar of the Mitchell River subdivision makes the following remarks in his report for the quarter ended December 1873 :—

GALENA AND SILVER MINES, BUCHAN.

"In this locality there are five mineral leases, upon four of which mining is at present being carried on; the chief of these is the Murindal, upon which the works are being actively pushed forward. The next mine of importance is the Buchan Lead and Silver Company's, the particulars relating to which have been kindly furnished me by the mining manager, a copy of which I append :—

"*Buchan Lead and Silver Mining Company.*—During the past quarter Mr. G. H. F. Ulrich has visited the mine, and by his advice a cross-cut has been driven 50 feet westerly from the end of the main level to intersect the lode; the ground having been extremely hard, progress has necessarily been slow; owing to the flatness of the lode the cross-cut has not yet intersected it, but a rise has been put up 8 feet, the last 2 feet being in good ore, and not yet through it; and, as work is

suspended during the holidays, cannot determine the thickness of the lode here until work is resumed. The other works done have been principally for ventilation purposes, rising from main level to No. 2 or underlay shaft, which will be finished about the end of January. No preparation for furnaces will be made until the quality of the lode in the cross-cut is fully proved."

Two leases were in force at the close of the year for mining for lead and silver, for an aggregate area of 605 acres and 32 perches; one to mine for galena and copper, for 17 acres 25 perches; and one to mine for lead, silver, and copper, for an area of 443 acres 3 roods and 34 perches. One license was issued during the year to search for lead and copper, for an area of 261 acres; eight licenses were issued to search for lead, silver and copper, for an aggregate area of 3445 acres; one license was issued to search for lead and silver, for 320 acres; one for galena and copper, for 403 acres; and one for galena only, for an area of 320 acres.

BISMUTH.

Mr. Warden Howitt reports :—"A few small rounded fragments of bismuth ore have been found in the alluvium of the Bem River (Combyingbar Creek), which give the reactions of bismutite. I have requested the finders to endeavour to procure more for transmission to the Office of Mines."

The Mining Registrar at Omeo states, in his report for the quarter ending 30th June 1873, that the search for bismuth at Wombat Creek has been resumed.

MANGANESE.

Mr. A. W. Howitt, the Warden at Bairnsdale, reports that various small samples of manganese ore have been sent down from the Snowy River, near Black Mountain, which belong to the harder varieties of wad. The fragments appear all to have been taken from narrow veins, say (6) six inches wide, in the decomposing porphyry. Some larger pieces are now at Gelantipy, awaiting transmission to the Mining Department."

Oxide of manganese was found in a sample forwarded to the Office of Mines from Golton-golton, in the Grampians.

IRON.

According to returns received, it appears that the following quantities of iron ore have been raised :—

							Tons.
Previously—up to 31st December 1872	...	...	...	...	...	...	Nil
From 1st January to 31st December 1873	...	...	...	...	...	...	52
Total	...	...	...	...	...	...	52

The following statement of Exports has been received from the Customs Department :—

							Iron Ore.	
							tons.	cwt.
Previously—up to 31st December 1872	...	...	...	...	...	...	8	8
From 1st January to 31st December 1873...	...	...	...	...	...	...	2	0
Total	...	...	...	...	...	...	10	8

A sample of iron ore was received from near Avoca for examination. Mr. J. Cosmo Newbery reported on it as follows :—"The sample consisted of clay iron ore. An analysis was made and yielded 51·8 per cent. of iron and 17 per cent. of silica and clay."

Another sample of iron ore from Bennison's Flat, east of Foster, was on examination found to consist of brown iron ore. An analysis was made of it and gave the following result:—

Metallic iron	...	...	...	...	...	61·4	=	87·72 Fe ₂ O ₃
Silica	...	...	...	...	...	12·1		

From Stony Creek, Western Port, a sample was got which consisted of brown hematite; it was found on analysis to contain:—

Iron	...	...	...	...	...	...	58·47	per cent.
Silica	...	...	...	...	...	...	7·24	„

From the vicinity of Sandhurst a sample of brown iron ore was forwarded to the Office of Mines for examination. It was found to contain a large percentage of silica, equal to nearly 35 per cent., proving it to be valueless for smelting.

Mr. Lewis C. Kinchela, Mining Registrar at Bright, forwarded to the Office of Mines a sample of mineral sand found with tin ore, at Koetong, and thrown away by the miners as being valueless. He stated that the appliances for extracting this supposed worthless mineral (locally termed "Black Jack") were of the rudest description, and he submitted it for inspection in consequence of the large quantities raised, being in some claims fully seventy-five per cent. of the total quantity of the ore taken out. An examination of the sample showed it to consist of titaniferous iron sand with traces of magnetic iron sand. It contained no tin or other mineral of economic value.

A sample of brown iron ore from the neighborhood of Ballarat was found on analysis to yield—

Iron	...	...	...	...	...	...	28·40	per cent.
Silica	...	...	...	...	...	...	51·70	„

From the neighbourhood of Sandhurst a sample of ferruginous clay was examined, and was found upon analysis to give—

Iron	...	...	...	...	...	...	10·0	per cent.
Silica	...	...	...	...	...	...	80·0	„

Valueless as an ore of iron, it might yet be turned to account in the manufacture of colored papers.

From Golton-golton, in the Grampians, a sample of friable sand was sent to the Mining Department, which was found to contain hydrous oxide of iron, &c., but no minerals of economic value.

A sample of iron ore was sent to the Office of Mines, from Maldon, for examination. Mr. Cosmo Newbery reported on it as follows :—"The sample consisted of brown iron ore containing 35·3 per cent. of iron."

Two samples of a mineral found on the surface near Beechworth, which were supposed might be stanniferous, were forwarded to the Mining Department, and proved to consist of brown iron ore and silica.

A sample of titaniferous iron sand was obtained from a branch of the Acheron River and forwarded to the Mining Department for examination. The sender was under the impression it was stanniferous.

From the Grampians an iron ore sample was obtained, and proved, on examination by Mr. Cosmo Newbery, to "consist of micaceous iron ore associated with quartz. If found free from quartz, and in large quantity, it would be a valuable iron ore, containing 72 per cent. of that metal."

The lessee of a mineral lease near Sandhurst forwarded a return of operations during 1873, in which he reports having raised 30 tons of Venetian red or red ochre clay, and having forwarded parcels of the ochre to different parts of the world for the purpose of having its value tested, there being no demand for it in the colony.

A return of operations on a mineral lease near Maldon shows that 20 tons of iron ore were raised during the year, that two tons were smelted, and that the produce from the quantity smelted was one ton. The lessees state that they would have completed their furnace had not the contractor thrown up the contract, and that they have sent to England for a practical man to conduct their operations.

Mr. William H. Gaunt, Warden, &c., Ballarat, forwarded the following information respecting the progress made by the Lal-lal Iron Company, which was supplied to him by the manager of the company (Mr. E. H. L. Swifte) :— * * *
 “It is intended as soon as possible to erect a furnace for treating iron ore on a large scale. Exertions are now being made to obtain the best information on the subjects of furnaces, smelting ores, and rolling-mills. Two tons of ore from the company’s lease have been smelted, and about one ton of iron was obtained therefrom. The means of smelting being insufficient, the result did not show the true quantity of metal in the ore ; several samples of slag from the furnace were experimented upon at the School of Mines, and found to contain 18 per cent. of metal.”

The warden at Kilmore reports that nothing has transpired relative to the discovery or working of minerals in his division, excepting of iron ore, and he states that further enquiries respecting this ore lead to a doubt whether this is in payable quantities, having regard to the expense of smelting.

The Warden at Maldon reports as follows :— * * * “During the year 1873 a lode of iron ore was discovered at Limestone Gully, near Sandy Creek, about four miles from Maldon ; and, in the month of March, a company was formed for the purpose of extracting and smelting the mineral. This company, styled the Victoria Iron Company, have obtained a lease of 42 acres, and are still carrying on operations. During the year 1873 some of the ore was forwarded to Melbourne and converted into pig-iron, which has been pronounced to be a good grey metal.”

From the beach, near Point Singapore, Wilson’s Promontory, a sample was got, which proved on examination to consist of titaniferous iron sand.

A sample of yellow ochre was received, at the Mining Department, from Snowy Creek, on which Mr. Newbery reported as follows :—“The sample consists of sesquioxide of iron, and has all the general characters of the deposits from waters containing iron salts in solution. Similar deposits occur at Bacchus Marsh, Ballan, Blackwood, the shores of Anderson’s Inlet, Tarwin River, and many other parts of the colony. It may be used in the manufacture of paint for common purposes, or, if carefully prepared, as an ochre.”

One lease was in force, on the 31st December, for the ores of iron, for an area of 42 acres 2 roods 22 perches ; and one lease for red ochre-clay, for an area of 2 acres and 14 perches.

One searching license for the ores of iron was issued during the year, for an area of 200 acres.

COAL AND LIGNITES.

COAL.

According to returns received, it appears that the following quantities have been raised :—

	tons	cwt.
Previously—up to 31st December 1872 ...	2,043	8
From 1st January to 31st December 1873 ...	504	0
Total ...	2,547	8

Mr. Charles Denis, Mining Registrar for the Traralgon subdivision, Gippsland, in three of his quarterly reports for the year, says (in the March report)— * * * “Coal is also reported to have been found lately at Scrubby Forest, on the Morewell River, the seam I am informed being 8 feet thick.” In the September report— * * * “Coal has been lately found on the Hazlewood run (distant from Traralgon about 12 miles), cropping out on the surface ; the seam, where it shows on the surface, is about 18 inches thick, and has increased to about 27 inches on sinking a few feet.” In the December report— * * * “Coal of a superior quality has been found on the Morewell and the Naracan. There are other coal finds in the neighbourhood of the Tyers River. These finds are quite distinct from the Excelsior Coal Mining Company at Hazelwood.”

Mr. Alfred Armstrong, Mining Surveyor for the St. Andrew’s Division, states, in his report for the quarter ending 31st December 1873— * * * “That, at Kileunda, the coal lands of Messrs. Latham and Watson are fully opened up. The scarcity of labor, of which they complained, has prevented their completing their tramway, which they hoped to have finished by the end of the year. They have about 1000 tons of excellent coal upon the bank, only waiting to be brought to Melbourne.”

A sample of coal obtained from a seam, said to be about 14 inches in thickness, situated about 23 miles from the Moe, was sent to the Office of Mines by Mr. Reginald A. F. Murray, Mining Surveyor, of Sale. On examination by Mr. Cosmo Newbery, he reported on it as follows :—“Coal much broken and jointed, non-eaking. It has evidently been subjected to surface action. Upon analysis it gives—

Water ...	10.15
Volatile matter ...	20.85
Fixed carbon ...	63.10
Ash ...	5.90
	100.00

The Warden at Foster reports as follows :—“Hardly anything has been done in the way of searching for a payable seam in the vicinity of Foster. This may be attributed to the fact that the rich discoveries of gold made at Turton’s Creek, in the earlier part of the year, engrossed all the local attention, and caused an almost entire stoppage of the operations then being carried on by the holders of the various search licenses. These operations, in consequence of Mr. Mackenzie’s unfavorable report, were never resumed.”

In a return of lessees’ operations, one lessee says :—“The contractor for the Kileunda Coal Association, of which I am a member, has now commenced a shaft on my lease for coal which is to be 250 feet in depth, and will occupy a few months in sinking. Other lessees, whose leases are situated at Blue Mountain, say that no coal has been raised during the year, but it is expected that some will be raised during 1874.

From Woolamai a lessee reports :—“In consequence of the unexpected delay in the completion of the tramway of the Western Port Coal Mining Company, my term has not commenced. The tramway will, however, be completed in the course of four weeks from the end of the year, when operations will at once be proceeded with.”

A lessee whose lease is situated at Griffith’s Point, says that a shaft is being sunk on the coal.

The lessees of the leases held by the Great Victoria Coal Mining Company, Strzelecki Ranges, state, in the returns of operations during the year, that they have been occupied in boring for coal, and that they have raised about 4 tons. A sample of the coal raised was exhibited at the office of the Melbourne and Hobson’s Bay United Railway Company.

Nineteen (19) leases were in force at the close of the year for mining for coal for an aggregate area of 9,506 acres 2 roods 15 perches.

Eleven (11) leases were issued during the year for coal, the aggregate area being 4,475 acres 2 roods 17 perches.

Fifty (50) licenses were issued during 1873, to search for coal, for an aggregate area of 29,795 acres.

Two licenses were issued, for an aggregate area of 1,280 acres, for searching for coal and kerosene shale, and coal, lignite, and shale.

The manager of the Western Port Coal Mining Company states that about 500 tons of coal have been raised, and are ready for shipment. The company have been engaged in completing eight and a half miles of railway. The first shipment of coal, he says, will be made during the first week of April 1874.

Coal was reported to have been found near Belfast in the early part of the year.

KEROSENE SHALE.

One license was issued during the year to search for kerosene shale and coal, for an area of 640 acres, and another to search for shale, coal and lignite, for 640 acres.

Mr. Reginald A. F. Murray, Mining Surveyor at Sale, forwarded to the Office of Mines, for examination, a sample of shale from Rintoul's or Tyler's Creek, distant about six miles northerly from Traralgon. Mr. Cosmo Newbery reported on it as follows :—"Shale, which gives upon analysis—

"Water	...	...	...	...	...	2.05
Fixed carbon	...	...	...	...	...	27.55
Volatile matter	...	...	...	...	...	21.00
Ash	...	...	...	...	...	49.40
						100.00

"The shale might, under certain circumstances, be used in the manufacture of gas. Upon distillation it gives a good illuminating oil."

LIGNITE.

According to returns received, it appears that the following quantities have been raised :—

Previously—up to 31st December 1872	...	...	...	...	...	tons. 1,992
From 1st January to 31st December 1873	...	...	...	...	...	763
Total	...	...	...	...	...	2,755

Mr. William H. Gaunt, the Warden, &c., Ballarat, has forwarded the following report of the operations carried on at the works of the Brown Coal Company (limited), Lal-lal, which was furnished to him by the manager of the company :—"We commenced to raise lignite on the 10th September last, and raised, up to the 31st December, 763 tons.

"Quantity sold to same date, 413 tons; quantity in store on the works, 350 tons. The value of the same at the pit's mouth is five shillings per ton.

"The average number of men employed from February to 30th of November was 23; but owing to the falling off in the demand for the lignite during the summer months we were unable to employ more than (6) six men."

The Warden at Foster says :—"The only other effort made to my knowledge in the search for coal, within this subdivision, was by a party of miners near the head of the Morwell River. It is to be regretted, however, that they were only successful in finding a seam of lignite."

A sample of lignite from one mile north of the Haunted Hill trigonometrical station, near the La Trobe River, was sent to the Office of Mines, by Mr. Reginald A. F. Murray, Mining Surveyor, Sale, and was examined by Mr. Cosmo Newbery, who wrote the following report about it :—

"Lignite in texture and appearance closely resembles the Lal-lal lignite. In 100 parts it contains—

Water	...	...	...	...	...	18.90
Volatile matter	...	...	...	...	...	35.25
Fixed carbon	...	...	...	...	...	41.75
Ash	...	...	...	...	...	4.10
						100.00

Respecting this deposit, Mr. Murray says :—"The Lignite is exposed for a short distance by a slight land slip on the steep bank, into the river. Mr. Ryan, the discoverer, has driven into it 20 feet. The thickness of solid lignite, like the sample forwarded, is nine (9) feet, with several feet above and below interstratified with clay. No bottom or roof of rock has been reached, and I cannot as yet ascertain whether the deposit is of mesozoic or tertiary age, the country round affording no outcrop of rocks and being covered with heavy sandy soil and scrub.

"Another bed of lignite is just visible in a white sandy clay below the water-level of the river. I believe the main deposit to be an extensive one." * *

Near the line surveyed for a railway a sample of lignite was got and sent to the Office of Mines for examination. Mr. Newbery reported on it thus :—"The sample consists of a compact lignite which burns readily with a bright flame. Its heating power is superior to wood. Upon analysis it gives—

Water	...	...	...	...	...	9.05
Volatile matter	...	...	...	...	...	40.45
Fixed carbon	...	...	...	...	...	47.55
Ash	...	...	...	...	...	2.95
						100.00

Mr. Cosmo Newbery examined a specimen of lignite from the Cross Over, Gippsland, and reported as follows :—"Dense lignite, burns with yellow flame. Upon analysis it gives—

Water	...	...	...	...	...	13.80 per cent.
Volatile matter	...	...	...	...	...	34.00 "
Fixed carbon	...	...	...	...	...	26.20 "
Ash	...	...	...	...	...	26.00 "
						100.00 "

The sample was said to have been got from a seam about 12 feet in thickness.

From McKirley's Creek, a tributary of the La Trobe River, a sample of lignite was forwarded to the Office of Mines for analysis, and Mr. Newbery reported on it as follows :—"The sample consists of black lignite. Upon analysis the following results were obtained :—

Water	...	...	...	...	...	22.6
Volatile hydro-carbons	...	...	...	...	...	38.3
Fixed carbon	...	...	...	...	...	26.2
Ash	...	...	...	...	...	12.9
						100.0

Lignite occurs near Smeaton, and Mr. Cosmo Newbery thus reports on a sample received in the Office of Mines :—"The sample consists of earthy lignite. An analysis shows its composition to be as follows :—

Volatile hydro-carbons	...	...	...	...	...	27.64
Fixed carbon	...	...	...	...	...	12.31
Ash	...	...	...	...	...	60.05
						100.00

The large percentage of ash will prevent this lignite from being economically used as a fuel. The sample contained grains of ambrite (fossil resin)."

For mining for lignite there was one lease in force on the 31st December, for an area of 475a. 2r. 10p.

One license was issued during the year for lignite, coal, and shale, for an area of 640 acres.

CLAYS.

According to returns received, the following quantities of kaolin have been raised :—

						tons	cwt.
Previously—up to 31st December 1872 ...	...	...	...	...	...	1,807	2
From 1st January to 31st December 1873	...	...	...	...	...	25	12
Total	...	...	...	...	...	1,832	14

The following statement of Exports has been received from the Customs Department :—

						tons	cwt.
Previously—up to 31st December 1871 ...	...	...	...	...	...	25	0
From 1st January to 31st December 1872	...	...	...	...	...	Nil	
Total	...	...	...	...	...	25	0

The lessee of lands situated at Bulla-bulla forwarded to the Office of Mines a statement of his operations during 1873, from which it appears that 25 tons 11 cwt. 3 qrs. of kaolin were raised.

Samples of clay from the Moe in Gippsland were found to consist severally of silicate of alumina and magnesia (grey clay), and of silicates of magnesia, alumina, and iron (mottled grey clay). These clays are suitable for the manufacture of bricks and tiles.

On the 31st December one lease was in force for kaolin, for an area of 5a. 2r. 28p.

FLAGS AND SLATES.

FLAGGING.

According to returns received, it appears that the following quantities have been raised :—

						tons	cwt.	square yards.
Previously—up to 31st December 1872...	...	...	...	...	...	5,656	15½	80,160
From 1st January to 31st December 1873	...	...	...	...	...	1,960	4½	Nil
Totals	...	...	...	...	...	7,617	0	80,160

SLATES.

The returns received show that there have been raised :—

						slates.	tons.
Previously—up to 31st December 1872...	...	...	...	...	...	11,000	160
From 1st January to 31st December 1873	...	...	...	...	...	Nil	Nil
Totals	...	...	...	...	...	11,000	160

The annual return of one lessee's operations, on lands near Castlemaine, during 1873 shows that 988 tons 19 cwt. 2 qrs. of flagging and 425 tons 16 cwt. of coreing had been raised. The lessee states that during the past twelve months the land has been worked with energy in sinking and opening out the quarry to a further depth of 40 feet, and from this time he fully expects to be in a position to raise and dispose of much larger quantities than he has hitherto done.

The returns of another lessee, whose land is situated at Castlemaine, gives 200 tons of slate flagging as the quantity raised during the year. He states that this estimate has been arrived at by reckoning up all stone sold, and all flags at grass on the 31st December 1873, for the year. He adds that there is a quantity of refuse stone still on the ground—say about 50 tons, not included in the 200 tons—but it may be quite worthless, and that he cannot find a market for it. About 400 or 500 tons of mullock have been raised in getting the 200 tons of flags.

Slate flagging amounting to 258 tons 9 cwt. was raised during the year from a lease situated near Castlemaine, at Barker's Creek. The lessee says that since the latter part of June he has been stripping the quarry preparatory to getting stone.

The holder of a lease on the Bald Hill range, near Stawell, reports having raised during the year 30 tons of slate.

The manager of a company holding land near Castlemaine reports having raised during the last two quarters of the year 57 tons of slate flagging.

The holder of another lease, in the same locality as the last mentioned, says he has not yet raised any flagging. His operations have been confined to sinking two shafts and carrying on other prospecting works for a slate reef.

The Warden at Castlemaine reports as follows :—"Flags, roofing slates, and coreing have been discovered during the past year in larger quantities than usual, as the following list of mineral leases will show :—At Barker's Creek the principal lease is that of Messrs Winks and Matthews, who have been working for a number of years, and have obtained flags, &c., in large quantities ; also, the lease of H. N. Alcock, where some very fine stone has been met with. A new mineral lease in the same locality held by H. Perkins gives promise of good stone. In Launceston and Nicholson's gullies two new quarries have been opened up; in the former Messrs. Powell have obtained some very fine flags, hearthstones, and coreing. The quarry in Nicholson's gully has been worked for a short period by a registered company, but nothing of any importance has been discovered."

One lease was in force at the end of the year for flagging, four leases for flagging and slate, and three leases for slate and freestone—the aggregate area being 411 acres 2 roods 8 perches.

Two leases were issued during the year, for flagging, for an aggregate area of 12 acres 1 rood and 39 perches ; and three for slate and flagging, for an aggregate area of 54 acres 3 roods 36 perches.

One license was issued during the year 1873 to search for slate, for an area of 50 acres.

MISCELLANEOUS MINERALS.

MAGNESITE.

No magnesite or carbonate of magnesia is reported to have been raised during the year.
 Magnesite is found near Steiglitz, Sandhurst, Fryerstown, and in other places where kaolin is found.

GYPSUM.

Gypsum and selenite are found in many parts of the colony.
 Three licenses were issued during the year to search for gypsum, for an aggregate area of 454 acres.

DIAMONDS.

The number reported to have been discovered is as follows:—

Previously—up to 31st December 1872 ...	...	...	...	...	94
From 1st January to 31st December 1873	...	...	...	...	6
Total	...	...	...	...	100

Mr. Walter Butler, Warden, &c., at Beechworth, reports the following particulars respecting diamonds found at that place during the year:—"There have been six diamonds reported as having been found during the past year, viz:—

1 at Eldorado,
 2 „ Sebastopol,
 2 „ Pilot creek,
 1 „ Wooragee,
 —
 6

"All in the Beechworth division. They were all of small size—the largest, $1\frac{1}{2}$ carat, being found at Pilot Creek, and purchased by Mr. Turner, jeweller, for the sum of £3."

ZIRCONS, SAPPHIRES, GARNETS, TOPAZ, ETC.

Mr. Warden Butler states that at Beechworth—"There have been the usual number of garnets, zircons, sapphires, &c., found during the year amongst the washdirt of the Woolshed and its tributaries, but none of such value as to require remark."

A sample of felspathic rock was received at the Office of Mines from the vicinity of Benalla. It contained crystals of apparently green garnet.

From the neighbourhood of Snowy Creek a sample of titaniferous and magnetic oxide of iron sand was found to contain minute crystalline grains of zircons.

OPAL.

Two miners were engaged during the last quarter of the year in mining for opal at Gelantipy, in Gippsland.
 Three searching licenses were issued during the year for opal, for an aggregate area of 164 acres.

Office of Mines,
 Melbourne, 9th February 1874.

R. BROUGH SMYTH,
 Secretary for Mines.

APPENDICES.

APPENDIX A.

METALS (OTHER THAN GOLD), MINERALS, AND ORES IMPORTED INTO VICTORIA DURING THE YEAR 1873.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.	Quantity.	Value.	Article.	Quantity.	Value.
		£			£
Antimony Ore ...	9 tons 1 cwt.	81	Metal, Yellow ...	223 tons 6 cwt.	20,611
" Regulus ...	0 " 6 "	19	Quartz ...	3 " 14 "	59
Arsenic ...	Nil	Nil	Quicksilver ...	964 bottles	13,304
Asphalt ...	20 tons 1 cwt.	63	Silver ...	Nil	Nil
Coal ...	187,798 " 0 "	245,596	" Ore ...	Nil	Nil
Copper ...	40 " 12½ "	3,949	Slates ...	Nil	Nil
" Ore ...	0 " 3 "	5	Slate Slabs ...	Nil	Nil
Iron, Ore ...	36 " 7 "	590	Spelter ...	Nil	Nil
" Pig ...	3,853 " 10 "	28,129	Sulphur ...	445 tons 9 cwt.	4,332
Kerosene Shale ...	2,388 " 2 "	7,008	Tin (including ingots) ...	112 " 13 "	10,943
Lead ...	30 " 0 "	561	" Ore, Black Sand ...	33 " 17½ "	2,327
" Ore ...	3 " 0 "	73	Zinc ...	175 " 10¼ "	5,374
" Pig ...	637 " 8 "	14,530			
Lime ...	75 " 1 "	353	Total ...		£357,907

APPENDIX B.

METALS (OTHER THAN GOLD), MINERALS, AND ORES EXPORTED FROM VICTORIA DURING THE YEAR 1873.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.	Quantity.	Value.	Article.	Quantity.	Value.
		£			£
Antimony ...	113 tons 6 cwt.	7,111	Lime ...	1,068 bushels	128
" Ore ...	677 " 12 "	5,650	Metal, Yellow ...	35 tons 8 cwt.	2,709
" Regulus ...	32 " 3 "	1,645	Quartz ...	Nil	Nil
Arsenic ...	Nil	Nil	Quicksilver ...	94 bottles	1,472
Coal ...	16 " 10 "	32	Spelter ...	162 tons 0 cwt.	3,009
Coke and Fuel ...	Nil	Nil	Silver ...	Nil	Nil
Copper ...	188 tons 5 cwt.	14,927	Slates ...	Nil	Nil
" Ore ...	150 " 0 "	2,000	Slate Slabs ...	Nil	Nil
Iron, Pig ...	111 " 0 "	906	Sulphur ...	62 tons 5 cwt.	966
" Ore ...	7 " 0 "	33	Tin ...	58 " 2 "	7,125
Kaolin ...	Nil	Nil	" Ore, Black Sand ...	174 " 17 "	11,309
Kerosene Shale ...	0 tons 18 cwt.	3	Zinc ...	14 " 15 "	604
Lead ...	7 " 18 "	220			
" Ore ...	60 " 13 "	328	Total ...		£60,177

NOTE.—The figures in these tables are extracted from the returns published by the Honorable the Commissioner of Trade and Customs. The statements include only raw materials. Thus pig-iron is included, but not bars, rods, plates, or castings; lead and lead ore, but not piping or sheet lead; and so in like manner the others. The returns published by the Customs Department necessarily include all. The quantities exported include metals, &c., not the produce of Victoria.

APPENDIX C.

RETURN SHOWING THE QUANTITY AND VALUE OF KEROSENE OIL IMPORTED INTO AND EXPORTED FROM THIS COLONY DURING THE YEAR 1873.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

IMPORTED.		EXPORTED.	
Quantity.	Value.	Quantity.	Value.
	£		£
49,708 gallons, 167,781 cases, } 2 hhds. ...	£136,374	398,378 gallons ...	40,477

APPENDIX D.

LABORATORY REPORT, 1873.

During the year about 200 analyses, assays, and examinations have been made in the laboratory. They have included ores of antimony (sulphide and oxide); bismuth (oxide and carbonate); copper (sulphides, oxide, chloride, and carbonates); chromium, as chrome ochre and chrome iron; cobalt, in psilomelane; gold, in quartz and alluvial samples, pyrites, antimony ores, and tailings; iron, as hematite, limonite, micaceous, magnetic, and titaniferous iron ores; lead, as galena, arseniate, carbonate, and phosphate; manganese, in pyrolusite and psilomelane; osmium-iridium; platinum; silver, in pyritous ores; lead ore, and as chloride and chloro-bromide; tin, in stream tin ore; tungsten, in wolfram; titanium, in titaniferous iron; zinc, in zinc blende; coal; lignite; water, from the reservoirs of the Water Supply Department, and from springs and wells; and rock and mineral determination of specimens collected by the mining and geological surveyors.

As has been the case in former years, the larger number of determinations are of little public interest, though of importance at the time to those who are examining the country. With the exception of gold, antimony and tin have attracted most attention during the year. The area over which these are distributed has been found to be much greater than was formerly supposed. The former is found in nearly all the silurian gold-fields, and samples of the latter have been received from localities extending from near the sea in Gippsland to the Murray River. Next to these metals have been lead, silver, and iron. Owing to the slow progress made with the works on the great iron deposits of Tasmania, those who attempted the opening of our iron mines seem to have been disheartened, and have, perhaps wisely, suspended operations for the present.

GOLD.

The samples examined for gold have been of the usual character, and bear out the statements of previous reports. The following are those of most interest; the assays were made from 1000 grain samples:—

Locality.	Ore.	Results per Ton.
Hoddle Range	Secondary pyrites	Gold obtained not weighable
Hoddle Range	" " " " " " " "	" "
Sandhurst	" " coating quartz	" "
Stockyard Creek	" " nodules from drift	" "
Panton Hill	" " " " " " " "	Oz. dwt. grs. 6 10 16 gold
Ararat	Massive iron and arsenical pyrites	22 17 8 "
Chewton	Crystalline iron pyrites	1 6 3 "
Hustler's Reef, Sandhurst	Massive iron and arsenical pyrites	{ 2 12 6 " 1 2 20 silver
Stafford Reef, Sandhurst	" " " " " " " "	{ 1 19 5 gold 0 13 2 silver
Eureka Reef, Sandhurst	" " " " " " " "	{ 2 5 17 gold 0 13 7 silver
Johnson's Reef, Sandhurst	" " " " " " " "	{ 2 12 6 gold 0 8 11 silver
Hustler's Reef, Sandhurst	Crystalline arsenical, with a little galena	{ 1 5 14 gold 2 9 3 silver
Morning Light, Sandhurst	Crystalline arsenical pyrites	{ 1 2 20 gold 0 19 14 silver
Crossover Creek	Iron pyrites from vein in dyke	17 6 6 gold
Diamond Creek	" " from quartz lode	3 10 11 "
Alexandra	" " " " " " " "	1 12 16 "
Castlemaine	" " " " " " " "	3 18 9 "
Tarnagulla	" " " " " " " "	0 19 4 "
Sandhurst	" " " " " " " "	7 10 6 "
Snowy Creek	" " " " " " " "	3 5 8 "
Sandhurst	" " " " " " " "	No weighable button of gold
Gippsland	Sulphide of antimony	Oz. dwt. grs. 4 11 0 gold
Costerfield	" " " " " " " "	2 12 6 "
" " " " " " " "	" " " " " " " "	1 19 5 "
Whroo	" " " " " " " "	3 14 8 "
Murchison	" " " " " " " "	2 1 1 "
Ringwood	" " " " " " " "	Silver; no weighable button
" " " " " " " "	Oxide of antimony	" " "
Merton	Sulphide of antimony	Oz. dwt. grs. 1 19 0 gold
" (second assay)	" " " " " " " "	1 19 0 "
St. Arnaud	Zinc blende	Silver button not weighable

Several new methods have been suggested for the extraction of the gold contained in these sulphides, but none have as yet been carried out to a successful issue, or superseded the ordinary process of concentration by buddles, roasting, and amalgamation. Direct smelting with lead has been tried, and it is said fair results obtained; but the slags, when assayed in the laboratory, gave an amount of gold equal to 13 dwt. per ton. This plan might be profitably applied to ores which contain a large percentage of galena, such as occur at Bourke's Flat, Percydale, and the mines in that neighborhood. Small experiments have shown good results with ores of this class.

In order to treat these ores with the greatest economy it will be necessary to establish large metallurgical works where the sulphur, copper, silver, lead, and antimony could be separated and saved as well as the gold. It has lately been shown that pyritous ores containing about one per cent. of copper and only a few grains of silver and gold per ton can be profitably treated in England, while by our processes it requires nearly an ounce of gold to the ton of pyrites to pay expenses, while the silver and copper are never even looked for. Many of the quartz mines yield pyrites containing on an average from three to five per cent. of copper, and some much more.

ANTIMONY.

The antimony samples, chiefly sulphides, were from Costerfield, Ringwood, Whroo, Murchison, Dunolly, and Sandhurst. The ore is all, more or less, associated with quartz. That recently obtained by the New Ringwood Company gave the least amount of quartz; blocks of ore weighing several hundredweight were obtained in which the quartz occurred only in minute isolated crystals, like those previously noted in the ore from Costerfield.

The following results were obtained by fire assay :—

Ringwood	...	Sulphide	...	65 per cent. antimony.
"	...	Oxide	...	45 "
Costerfield	...	Sulphide	...	53 and 38 "
" (Allison)	...	"	...	48 and 32 "
Whroo	...	"	...	62 and 45 "
" (Balacava)	...	"	...	60 "
Sandhurst	...	"	...	68 and 52 "
"	...	Oxide	...	" "
Dunolly	...	Sulphide	...	53 and 30 "
Murchison	...	"	...	55 "

As mentioned in former reports, nearly all the antimony ores contain gold; some in large quantity, and in others only as mere traces. The Ringwood ore only contains a few grains of silver per ton, while samples from other mines give several ounces. The amount of gold will probably be found to vary with the richness or poorness of the associated quartz. Most of the gold in antimony ore is in irregular grains, and is of the usual standard and composition of "reef" gold, adding proof to the theory of the aqueous deposition of these veins, for if this gold is fused with the sulphide of antimony it parts with a portion of the associated silver. But some of the gold obtained by assay was undoubtedly contained in the sulphide in combination with the sulphur and antimony. Mr. J. Morley, a student in the laboratory, obtained gold from more than one sample of sulphide by treating it with a solution of potash, precipitating the sulphide from the solution, and assaying the metal obtained by means of the blowpipe.

BISMUTH.

Bismuth samples were received from the Omco district, and consist, as previously, of rolled fragments of oxide and carbonate. In Tasmania, bismuth has been lately found in metallic grains in a lode associated with arsenical pyrites. The great mass of the lode-stone is hornblende. In the Omco district there are many hornblende rocks, which it would be well to examine, as a source of the fragments of metallic bismuth and the oxide and carbonate found in the beds of streams. The present scarcity of bismuth makes the Tasmanian discovery of considerable importance.

COPPER.

New discoveries of copper are reported in Gippsland, near the Thomson River mine, and in the Grampians, near Stawell. The samples shown were ordinary surface ores. Several samples brought in by prospectors have proved to be chrome ochre, or rocks colored by oxide of chromium, being mistaken by the finders for green carbonate of copper. Rocks of this kind occur throughout the colony, but are of no economic value, the percentage of chromic oxide never being more than 7 per cent. In the vicinity of these rocks large quantities of chrome iron-sand is found in the creeks, in small bright octahedrons or as larger dull crystals and fragments looking very like the pleonaste, with which they are often associated. These dull crystals have been received from Gippsland, in the vicinity of Corner Inlet, and from the tributaries of the La Trobe. At some future period these sands may be of value as a source of chromium compounds.

IRON.

The following samples of iron ore were assayed :—

Variety.	Locality.	Silica.	Iron per Cent.
Micaceous ...	Grampians ...	...	70.0
Hematite ...	Bennison's Flat ...	1.2	61.4
Limonite and Hematite	Stony Creek, Western Port	7.24	58.47
Limonite ...	Cemetery Reserve, Sandhurst	35.0	...
" ...	Sebastopol ...	25.0	28.0
" ...	Maldon ...	...	35.0
" ...	Crossover Creek ...	...	45.0
" ...	Stockyard Creek ...	15.0	50.0
" ...	Stockyard Creek ...	30.0	41.0
" ...	Bairnsdale ...	10.0	37.0
" ...	Bruthen ...	12.0	35.0
" ...	Barwon River ...	9.0	38.0
" ...	Barwon Heads ...	10.0	32.0

Little or no work has been done in opening the deposits of iron ore, and it is still very doubtful whether the ores are in sufficient quantity to repay the expenses of erecting smelting works. The rich micaceous ores of the Grampians and Lake Tyers are, judging by the specimens received, of a very patchy character, containing masses and veins of quartz.

The limonite deposits in connection with our lignite beds deserve some attention, for if the ore is found to be in quantity, and of a quality like the samples tested, it may be found possible to produce an iron with the quality of charcoal iron, by smelting the ore with the lignite or with the charcoal to be obtained from it. Treated in bloomery furnaces with this lignite fuel, the titaniferous sands would, I believe, make an excellent iron. The "charcoal" from the Crossover Creek lignite burns like wood charcoal, and will stand a much stronger draught than the latter. A sample made in the laboratory from Crossover lignite was found to contain only a minute trace of sulphur, and no phosphorous, and made an excellent fuel.

LEAD.

The lead mines of Buchan, Gippsland, have been raising ore during the year of much the same character as that noted in the report of 1871. The attempts at smelting the ore at the mines have not, however, met with much success; some of the lead has contained too much antimony to be used for common purposes, and in other instances little or no metal has been obtained from the furnaces.

These are, however, but temporary difficulties, and will be obviated with experience. The difficulty in smelting seems to be caused by not dressing the ore before putting it into the furnace. The samples which have been examined at the laboratory have assayed 35 to 50 per cent. of lead, the gangue being carbonate of lime. This is sufficient to explain all the failures in smelting, as the samples were considered as dressed ore, ready to go into the furnace.

The percentage of antimony, as previously noted, is variable, but in picking the ore the portions richer in antimony might easily be placed on one side, to be smelted separately, and would produce a lead having a higher percentage of antimony in it, which would make it suitable for special manufactures, while the other portions would not contain enough antimony to make it too hard for ordinary uses.

SILVER.

The lead ores from the Buchan limestone are not sufficiently rich to treat for silver, though in most samples assayed this metal has been found in quantities varying from a few grains to 20 ounces per ton of ore; and no doubt when the works where the ores are smelted have proper metallurgical superintendence, the percentage of silver will be noted, and the argentiferous ore selected and smelted separately from the poor ore. From the information obtained from these mines it seems that the poor and richer argentiferous galenas are taken from different lodes.

A considerable quantity of silver has been obtained from St. Arnaud. At present the work of the mine is confined to ore which has been decomposed by surface action. Samples of the ore examined were found to contain metallic gold, silver, and copper, chloride and chloro-bromide of silver, carbonate, arseniate, and phosphate of lead, with hydrous oxide of iron in a mass of friable quartz. The process adopted at the works was to crush the ore dry, and then to pass the very finely floured ore into a furnace, where it was roasted; as might be supposed, this resulted in the reduction of much of the lead salts to metallic lead, which was afterwards collected when the roasted ore was amalgamated. Latterly the roasting has been dispensed with, and somewhat better results have been obtained, though the percentage of metallic copper has increased. Owing to the general rusty appearance of the ore it is impossible to judge of its character by simply looking at it, so that by the present plan of working there is no means of telling what the result of each crushing will be, and whether the ore being raised from the mine is worth treating; as in the case of the Buchan lead mines, no permanent success can be looked for until proper metallurgical skill is employed. At St. Arnaud the real difficulties will be met with when the ore is taken from below the water-level. Samples which have been obtained have consisted of dense mixtures of iron, and copper, and arsenical pyrites, containing gold and silver, argentiferous galena, and zinc-blende.

The present ore averages about 6 ozs. of silver and 13 dwts. of gold per ton.

TIN.

Several new discoveries of stream-tin have been made during the year, the majority of which have been on the Upper Murray and in Gippsland.

The following assays have been made of samples from new localities :—

Mt. Fatigue	...	...	...	...	53 per cent. tin.
Tributary, Latrobe River	...	...	...	...	40 " "
* Mansfield	...	...	...	...	15 " "
Dry Creek (Upper Murray)	...	...	...	...	71 " "
Cudgewa Creek	...	...	...	...	68 " "
Burrawa Creek	...	...	...	...	71 " "
Muddy Creek	...	...	...	...	74 " "
Koetong	...	...	...	...	67 " "

* In this sample, said to come from the neighbourhood of Mansfield, the oxides of tin and iron occurred as one mineral. The average percentage of the pebbles was as is given above. This is the only instance in which oxide of iron has been present in greater quantity than a few per cent. The sand from the Upper Murray has a grey color, and is, as a rule, much more pure than the tin sand from Gippsland. The Victorian ores are remarkably free from wolfram, though the ores from the New South Wales side of the Murray is largely associated with this mineral. In some localities it occurs in lumps of several pounds weight. This is also the case in Tasmania and Queensland. The sand usually associated with the Victorian ore are titaniferous and magnetic iron, chrome iron, pleonaste, and tourmaline.

COAL AND LIGNITE.

					Water.	Volatile Matter.	Fixed Carbon.	Ash.
1.	...	...	...	...	undetermined	6.2	82.9	10.9 = 100
2.	...	...	...	...	25.40	42.55	29.35	2.70 = 100
3.	2275	...	...	...	undetermined	50.25	22.0	27.75 = 100
4.	2313	...	...	...	undetermined	29.46	30.81	39.73 = 100
5.	Smeaton (ambrile grains)				undetermined	27.64	12.31	60.05 = 100
*6.	McKirley's Creek, Latrobe River (coal)				22.6	38.3	26.2	12.9 = 100
7.	Crossover Creek				10.0	37.8	26.20	26.0 = 100
8.	Gippsland Railway Line				9.05	40.45	47.55	2.95 = 100
9.	2806—oil shale				2.05	21.0	27.55	49.40 = 100
10.	2809				10.15	20.85	63.10	5.90 = 100
11.	Crossover				17.73	41.25	35.17	5.85 = 100
12.	Latrobe River				18.9	35.25	41.75	4.11 = 100

* This sample with which the experiments were tried was taken from a drive put into the bed. No. 7 was probably a surface specimen; it contains more ash than any sample received before or since from this deposit.

The Crossover Creek lignite, when dried, gives two per cent. of sulphur; upon distillation, it yielded an amount of gas equal to 66.45 cubic feet per ton; the flame of which was of rather a pale color, but might be of value as a carrier. The coke obtained resembled charcoal, and would make an excellent fuel as a substitute for coke or charcoal. This coke contained only traces of sulphur.

The other metals and ores examined have included platinum and osmium-iridium from Stockyard Creek, where they are found associated with gold in alluvial workings. Cobalt, as before reported, in connection with maganese in psilomelane and zinc in a sulphide with pyrites from quartz lodes.

A number of clays have been examined, but none have been found which make satisfactory fire-bricks or crucibles. The upper silurian clays, mentioned in a former report, are the best, but owing to iron infiltrations there is much difficulty in picking out only the pure clay. Wherever it is contaminated with iron it fuses readily. No clay has yet been found suitable for the manufacture of crucibles. A bed of white siliceous clay has lately been discovered on one of the islands in Western Port Bay, which is suitable for the manufacture of bricks. When carefully burnt they have a nearly pure white color, and would be of value in ornamental building.

WATER.

The following analyses of water have been made :—

Well in tertiary clay, Wimmera	{	Sulphate of lime ...	...	4.92	grs. per gallon
		Alkaline sulphates	...	2.76	" "
		Alkaline chlorides	...	0.32	" "
				<hr/>	
				8.00	" "
Well, Northern Wimmera	{	Chloride of sodium	...	9.39	grs. per gallon
		" potassium	...	0.54	" "
		" magnesium	...	0.56	" "
		Sulphates and lime	...	traces	
		Silica ...	...	0.16	" "
				<hr/>	
				10.65	" "
Crusoe Gully	{	Carbonate of lime ...	...	3.20	grs. per gallon
		Chloride of sodium	...	4.95	" "
		Magnesian salts	...	traces	
		Clay ...	...	3.64	" "
		Organic matter	...	3.5	" "
				<hr/>	
				15.29	" "
Mount Macedon Spring Water	{	Chloride of sodium	...	2.864	grs. per gallon
		" magnesium	...	1.377	" "
		Carbonate	...	traces	
		Silica ...	...	2.24	" "
				<hr/>	
Barker's Creek, Castlemaine ..	{	Organic matter	...	1.77	grains
		Clay (silicate of alumina)	...	3.03	"
		Chloride of sodium	...	1.97	"
				<hr/>	
Spring Gully, Sandhurst	{	Silica ...	...	1.28	grains
		Sulphate of soda	...	17.18	"
		Chloride of potassium	...	traces	
		Chloride of sodium	...	37.22	"
		Sulphate of magnesium	...	.72	"
		Chloride of calcium	...	traces	
				<hr/>	
				56.40	"

J. COSMO NEWBERY, B. Sc. Analyst.

1875.

VICTORIA.

MINERAL STATISTICS OF VICTORIA

FOR THE YEAR

1874.

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority :

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MEMORANDUM.

The Mineral Statistics for the year 1874 will be read and considered carefully by all who feel interested in the prosperity of the colony. The gross yield of gold, as measured by the exports and the gold minted, is less than that of 1873, but the average per man per annum is greater than it has been for many years past.

Quartz veins, giving more than 3 ozs. per ton, have been found at depths exceeding eight hundred feet, and more than one hundred and ninety feet below the level of the sea ; and there is no doubt that when the numerous auriferous veins are more extensively developed the colony will find in these lasting stores of wealth.

ANGUS MACKAY,
Minister of Mines.

Office of Mines,
Melbourne, 15th February 1875.

MINERAL STATISTICS, 1874.

The officers of the Mining Department have carefully and diligently collected Statistics during the past year, and the accuracy of the information contained in this Report may be relied upon. Indeed the tables and statements speak for themselves. The several data were obtained from diverse sources ; and the character of the gentlemen from whom the Department receives information is a sufficient guarantee that no avoidable mistakes can have been made. In addition to facts furnished by the Mining Registrars and Mining Surveyors, the managers of mines, the managers of the banks throughout the colony, and officers in the Imperial Service, have courteously rendered assistance ; and there is no available check that has not been used in order to make the tables accurate and complete.

GOLD.

The estimates of gold raised during the years 1871, 1872, 1873, and 1874 are as follows :—

	1871.		1872.		1873.		1874.	
	ozs.	dwt. grs.	ozs.	dwt. grs.	ozs.	dwt. grs.	ozs.	dwt. grs.
Exported, according to returns furnished by the Hon. the Commissioner of Trade and Customs ...	1,355,477	3 0	1,160,554	19 0	1,115,987	14 0	904,154	0 0
Received at the Melbourne branch of the Royal Mint ...	...		121,965	17 0	104,891	6 0	251,817	19 0
Raised, according to estimates made by the Mining Registrars ...	1,368,942	9 4	1,331,377	18 0	1,170,397	12 0	1,097,644	0 0
Purchased, from returns made by managers of banks and others ...	1,290,844	18 1	1,218,094	9 0	1,162,492	14 0	1,105,115	0 0

The decrease in the yield of gold, as measured by the quantities exported and received in the Mint, was, in 1872 as compared with 1871, 72,956 ozs. 7 dwts., in 1873 as compared with 1872, 61,641 ozs. 16 dwts., and in 1874 as compared with 1873, 64,907 ozs. 1 dwt.

When there was a duty imposed on the export of gold it was easy to compare the produce of one year with that of another ; and though it is no longer possible to get results with the same facility, so much care is now exercised that those that are arrived at are perhaps as trustworthy as the figures given for the years when a duty was exacted.

Yield of gold
from quartz, &c.

The yield of gold in 1874 from certain parcels of vein-quartz, mullock, pyrites, &c., respecting which the Registrars have obtained information, is as follows :—

					Crushed or Treated.		Produce.			Average per Ton.		
					Tons	cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.
Quartz	..	...	...	...	967,069	9	573,220	17	5	0	11	20·51
Quartz tailings, mullock, &c.	...	...	...	...	69,439	0	6,866	11	10	0	1	23·46
Pyrites, blanketings, &c.	...	...	...	...	6,725	15	18,941	14	13	2	16	7·82

These figures compare very favorably with those given in my Report for the year 1873.

As compared with 1873, there is a small decrease in the quantities of vein-quartz put through the mills, but the gross quantity of gold obtained from vein-quartz in 1874 was 6,006 ozs. 10 dwts. 3 grs. in excess of that got in 1873.

During the past five years there has been a gradual increase in the quantities of gold obtained from vein-quartz ; and the average yield per ton in 1874, notwithstanding that much of the quartz is now extracted from levels at great depths, is highly satisfactory. The figures for the past five years are as follows :—

Year.		Quartz Crushed.		Produce.			Average per Ton.		
		Tons	cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.
1870	...	908,526	17	448,683	16	10	0	9	21·05
1871	...	924,704	14	484,303	3	5	0	10	11·39
1872	...	954,571	2	568,381	17	14	0	11	21·81
1873	...	991,673	19	567,214	7	2	0	11	10·55
1874	...	967,069	9	573,220	17	5	0	11	20·51

The following table shows the quantities of quartz tailings, mullock, &c., crushed and treated, and the results obtained therefrom, during the last five years :—

Year.		Quartz Tailings, Mullock, &c., Crushed.		Produce.			Average per Ton.		
		Tons	cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.
1870	...	163,972	15	22,133	17	19	0	2	16·79
1871	...	167,196	18	21,914	10	0	0	2	14·91
1872	...	67,182	15	8,972	14	23	0	2	16·11
1873	...	25,387	0	2,880	0	5	0	2	6·45
1874	...	69,439	0	6,866	11	10	0	1	23·46

In 1870 and 1871 auriferous cement was included in the returns ; and the figures for these years cannot therefore be compared with those for 1872, 1873, and 1874.

During the past year there has been, contrary to expectation, a great increase in the quantities of quartz tailings, &c., treated. In the Tarrangower Division of the Castlemaine District the returns show that no less than 1,225 ozs. 15 dwts. 15 grs. of gold have been extracted from 30,858 tons of tailings, &c. In 1873 the quantity treated in this division was 1,290 tons only.

The quantities of pyrites, blanketings, &c., treated during the past five years, and the gold obtained, were as follows:—

Year.		Pyrites and Blanketings Treated.		Produce.			Average per Ton.		
		Tons	cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.
1870	...	3,180	5	8,503	7	13	2	13	11·42
1871	...	3,562	9	9,113	19	11	2	11	4·00
1872	...	5,008	18	13,636	8	0	2	14	10·83
1873	...	5,568	0	15,887	17	8	2	17	1·64
1874	...	6,725	15	18,941	14	13	2	16	7·82

These results are encouraging ; and it is evident that very great attention is being given to the vast heaps of tailings, &c., that accumulated when the methods of extracting gold were not as efficient as they are now. As quartz from the mine is now treated, quartz tailings and waste products—except those that abound in auriferous pyrites—are not likely to give profitable results by any method known at present ; but nearly all the old heaps will well repay the miner if skill and economy be used.

Since the commencement of the publication of these Statistics information ^{Quartz crushed.} respecting the yield of gold from certain parcels of vein-quartz crushed and treated has been recorded. The record is necessarily incomplete, because it was impossible to obtain returns from all the mills. Many of them are very small, and at many no accounts are kept ; but figures were obtained where procurable, and the returns show that, up to the 31st December 1874, 11,441,638 tons 6 cwt. of vein-quartz have been crushed ; the yield of gold therefrom being 6,447,640 ozs. 6 dwts., or an average of 11 dwts. 6·49 grs. per ton.

The quantities of vein-quartz crushed, and the average yield of gold therefrom per ton, were, during the past five years, according to the information collected by the Mining Registrars in the several districts of the colony, as follows :—

District.	1870.					1871.					1872.					1873.					1874.				
	Quartz Crushed.		Average Yield of Gold per Ton.			Quartz Crushed.		Average Yield of Gold per Ton.			Quartz Crushed.		Average Yield of Gold per Ton.			Quartz Crushed.		Average Yield of Gold per Ton.			Quartz Crushed.		Average Yield of Gold per Ton.		
	tons	cwt.	ozs.	dwt.	grs.	tons	cwt.	ozs.	dwt.	grs.	tons	cwt.	ozs.	dwt.	grs.	tons	cwt.	ozs.	dwt.	grs.	tons	cwt.	ozs.	dwt.	grs.
Ballarat ...	286,243	5	0	6	4·66	311,237	10	0	5	18·72	307,830	10	0	5	11·39	322,333	14	0	5	14·68	276,409	16	0	7	15·88
Beechworth	111,104	5	0	10	1·72	105,251	10	0	9	19·77	76,648	0	0	10	20·15	85,382	11	0	9	15·42	73,125	15	0	10	5·26
Sandhurst	211,542	0	0	11	13·83	186,790	10	0	12	10·60	292,630	10	0	17	2·64	317,429	0	0	15	13·86	323,493	0	0	14	6·35
Maryborough	72,422	16	0	8	9·52	48,941	14	0	9	16·77	35,158	0	0	11	14·63	40,509	5	0	10	9·20	31,903	0	0	9	10·77
Castlemaine	118,682	4	0	10	12·24	130,364	0	0	9	10·02	134,241	0	0	9	2·80	129,855	14	0	9	9·44	156,146	10	0	9	16·98
Ararat ...	75,374	2	0	12	11·63	105,188	12	0	15	15·07	70,201	14	0	17	13·00	60,733	0	0	18	20·97	63,757	0	0	18	9·80
Gippsland	33,158	5	1	5	5·17	36,930	18	1	12	0·62	37,861	8	1	5	21·88	35,430	15	1	7	16·28	42,234	8	1	3	12·79

It will be observed that there is a decrease in the quantities of quartz reported as having been crushed in the districts of Ballarat, Beechworth, and Maryborough, but the average yield per ton in all the districts is well maintained.

During the eleven years ending 31st December 1874 the quantities of tailings, ^{Tailings, mullock, &c.} mullock, &c., treated were 1,663,033 tons, which yielded 299,117 ozs. 4 dwts. 2 grs. of gold, or an average of 3 dwts. 14·33 grs. per ton.

The returns made to the Department show that during the six years ending ^{Pyrites, blanketings, &c.} 31st December 1874 the quantities of pyrites, blanketings, &c., operated on were 25,445 tons 4 cwt., yielding 70,551 ozs. 0 dwts. 14 grs., or an average of 2 ozs. 15 dwts. 10·88 grs. per ton.

The quantity of washdirt puddled or sluiced during the year 1874, according ^{Washdirt.} to the returns made by certain companies and miners, was 1,037,345 tons 7 cwt. The

yield of gold therefrom was 54,725 ozs. 18 dwts. 7 grs., or an average of 1 dwt. 1·32 gr. per ton.

The Statistics show that during the past two years and nine months 3,351,467 tons 7 cwt. of washdirt yielded 214,767 ozs. 10 dwts. 12 grs. of gold, or an average of 1 dwt. 6·76 grs. per ton.

A very large quantity of washdirt was treated in the Fryer's Creek and Hepburn Divisions of the Castlemaine District during the year 1874. It is reported that 577,569 tons gave an average of 9·24 grs. of gold per ton.

In the St. Andrew's Division of the Castlemaine District 820 tons were treated, and the yield was 5 dwts. 2·91 grs. per ton. There are large tracts in this division, and in other parts of the colony, that would yield from £4 to £5 per man per week if worked by hydraulic sluicing. I have lately visited many claims where the yield was as high as this ; and one of the miners assured me that he had work before him as remunerative as that above mentioned which would keep him employed for twenty years.

Cement. The quantity of cement crushed during the year 1874, according to the information that the Registrars have been able to obtain, was 35,010 tons, which yielded 8,789 ozs. 9 dwts. 8 grs. of gold, or an average of 5 dwts. 0·50 gr. per ton.

There is a decrease this year in the quantities of cement treated. During the year 1873 there were 76,051 tons crushed, which yielded 14,926 ozs. 17 dwts. 6 grs., or an average of 3 dwts. 22·21 grs. per ton. The decrease in the districts of Maryborough and Castlemaine, where formerly from these auriferous deposits large quantities of gold were obtained, is remarkable.

From 1872 to 1874, inclusive, the returns made to the Department show that 180,361 tons have given an average of 4 dwts. 1·23 gr. per ton.

Number of miners. The decrease in the mean number of miners employed during the year 1874 as compared with 1873 is 5,545, and as compared with 1872, 8,147.

The withdrawal of such large bodies of men from an occupation that, on the whole, gives good returns for the labor bestowed on it is the cause of the great reduction in the produce of gold. While the average earnings per man per annum continue to increase, the numbers engaged in gold mining decrease, and if there were not great inducements held out to miners to abandon mining operations, the yield of gold, instead of falling off, would now be greater than in former years. The miners have now better machinery and better appliances for saving gold than ever they had, and yet they are leaving the mines in order to engage in other pursuits.

The numbers employed in alluvial mining and quartz mining on the 31st December in each year during the past five years were as follows :—

District.	1870.			1871.			1872.			1873.			1874.		
	Alluvial Miners.	Quartz Miners.	Total.	Alluvial Miners.	Quartz Miners.	Total.	Alluvial Miners.	Quartz Miners.	Total.	Alluvial Miners.	Quartz Miners.	Total.	Alluvial Miners.	Quartz Miners.	Total.
Ballarat ...	11,278	3,097	14,375	10,998	2,894	13,892	9,323	3,262	12,585	8,220	3,168	11,388	7,307	2,750	10,057
Beechworth	7,114	2,070	9,184	6,462	1,657	8,119	5,988	1,477	7,465	5,557	1,371	6,928	5,194	1,222	6,416
Sandhurst...	4,101	4,893	8,994	3,373	5,455	8,828	3,066	5,130	8,196	2,899	5,078	7,977	2,737	4,526	7,263
Maryborough	10,279	1,917	12,196	10,202	1,844	12,046	8,509	2,054	10,563	8,484	1,880	10,364	6,978	1,809	8,787
Castlemaine	6,255	2,540	8,795	6,293	2,844	9,137	5,247	3,098	8,345	4,665	3,141	7,806	4,571	2,219	6,790
Ararat ...	2,055	653	2,708	2,293	868	3,161	2,021	945	2,966	1,996	1,167	3,163	2,124	1,197	3,321
Gippsland...	2,214	781	2,995	2,121	975	3,096	1,987	858	2,845	2,001	968	2,969	1,767	750	2,517
Totals ...	43,296	15,951	59,247	41,742	16,537	58,279	36,141	16,824	52,965	33,822	16,773	50,595	30,678	14,473	45,151

In reply to enquiries, Mr. Hayter, the Government Statist, has been good enough to furnish a return showing the number of hands employed in certain kinds

of labor in the years 1866 and 1874, and, excluding females, the figures are as follows :—

				Number of Hands Employed.	
				1866.	1874.
On farms	...	...	...	33,147	56,581
On squatting runs	...	...	...	6,799	5,128
In breweries	...	...	...	614	988
In flour mills	...	...	...	632	725
In manufactories, works, &c....	...	...	...	7,628	18,921
Totals	...	...	...	48,820	82,343

In 1866 the mean number of miners employed on the goldfields was 73,577 ; so that while there has been an increase of 33,523 during the past nine years in the number of persons engaged in farming, manufactories, &c., there has been a decrease of 27,065 in the number of gold miners.

These figures, it appears to me, deserve attention.

The number of Chinese miners is diminishing. The figures for the past five Chinese miners. years are as follows :—

1870	...	...	...	...	...	15,079
1871	...	...	...	...	...	15,669
1872	...	...	...	...	...	14,158
1873	...	...	...	...	...	13,528
1874	...	...	...	...	...	12,180

During the year 1874 there were 12,056 Chinese miners employed in alluvial mining, and 124 in quartz mining. The Chinese miners do not readily embrace labors involving the employment of elaborate machinery. They confine themselves, as a rule, to the extraction of gold from the shallow alluviums, where their industry, untiring perseverance, and thrift, enable them to derive sure if but small profits.

The numbers of Chinese miners in the several mining districts are as follows :—

Ballarat	...	...	...	...	2,310
Beechworth	...	...	...	...	2,874
Sandhurst	...	...	...	...	764
Maryborough	...	...	...	...	2,487
Castlemaine	...	...	...	...	2,110
Ararat	...	...	...	...	900
Gippsland	...	...	...	...	735
Total	...	...	...	...	12,180

Dividing the value of the gold exported and minted amongst the mean number of miners employed throughout the year 1874, the average per man is £99 8s. 3·07d Average earnings of the miners.

There has been no higher average than this during the past eighteen years, except in 1868, when the quantity of gold exported was 1,657,498 ozs., and the average per man for the year £104 18s. 8·75d.

The averages for the past five years were as follows :—

Year.				ALLUVIAL MINERS. Earnings per man per annum.			QUARTZ MINERS. Earnings per man per annum.			Average Earnings per man per annum.		
				£	s.	d.	£	s.	d.	£	s.	d.
1870	...	...	...	61	8	5¾	133	3	11¾	81	0	6·46
1871	...	...	...	65	17	11½	164	10	4	93	6	0·62
1872	...	...	...	65	0	6¾	159	0	6¼	93	17	1·47
1873	...	...	...	59	15	9½	164	15	9¾	93	16	2·62
1874	...	...	...	58	9	2¼	183	0	9	99	8	3·07

Machinery
employed.

The following table shows the steam machinery employed in the gold mines of the colony during the past five years :—

			ALLUVIAL MINING. Steam Engines employed in Winding, Pumping, &c.		QUARTZ MINING. Steam Engines employed in Winding, Pumping, &c.		Stamp-heads (Crushing Quartz or other Veli-stuff).
			Number.	Aggregate Horse-power.	Number.	Aggregate Horse-power.	
1870	Ballarat	...	216	6,484	136	3,314	1,241
	Beechworth	...	50	806	71	953	1,084
	Sandhurst	...	37	542	161	2,742	1,444
	Maryborough	...	69	1,560	116	2,308	757
	Castlemaine	...	22	393	146	2,515	1,098
	Ararat	...	9	130	35	944	361
	Gippsland	...	...	...	46	796	537
			403	9,915	711	13,572	6,522
1871	Ballarat	...	219	6,424	132	3,163	1,197
	Beechworth	...	47	772	71	942	1,098
	Sandhurst	...	31	508	168	2,891	1,549
	Maryborough	...	71	1,633	106	1,966	734
	Castlemaine	...	27	411	143	2,540	1,109
	Ararat	...	9	128	37	966	397
	Gippsland	...	...	...	48	805	506
			404	9,876	705	13,273	6,590
1872	Ballarat	...	210	6,262	136	3,317	1,235
	Beechworth	...	43	702	73	847	1,069
	Sandhurst	...	20	298	224	4,014	1,412
	Maryborough	...	74	2,144	105	2,040	748
	Castlemaine	...	18	309	160	3,087	1,186
	Ararat	...	13	175	42	1,027	410
	Gippsland	...	1	6	42	786	500
			379	9,896	782	15,118	6,560
1873	Ballarat	...	197	5,929	131	3,385	1,194
	Beechworth	...	44	711	65	859	1,024
	Sandhurst	...	19	290	235	4,133	1,423
	Maryborough	...	71	2,087	109	2,017	830
	Castlemaine	...	14	301	165	3,296	1,141
	Ararat	...	15	241	38	1,032	397
	Gippsland	...	2	20	46	799	492
			362	9,579	789	15,521	6,501
1874	Ballarat	...	185	5,705	135	3,348	1,121
	Beechworth	...	45	730	69	896	1,014
	Sandhurst	...	19	300	232	4,216	1,428
	Maryborough	...	67	1,938	110	2,070	872
	Castlemaine	...	13	291	160	3,044	1,151
	Ararat	...	22	328	41	1,411	344
	Gippsland	...	2	25	41	564	501
			353	9,317	788	15,549	6,431

Tables Nos. 10, 11, 12, 13, 14, 15, 16, and 17 give full information respecting the machinery and appliances in use in the several mines of the colony.

The estimates of the value of the machinery and appliances in use on the several goldfields of the colony for the past five years, as made by the Mining Registrars, are as follows :—

District.	1870.	1871.	1872.	1873.	1874.
	£	£	£	£	£
Ballarat ...	565,398	516,825	493,325	494,668	422,448
Beechworth ...	303,152	288,840	269,591	256,295	249,856
Sandhurst ...	435,645	454,330	488,190	503,398	505,580
Maryborough ...	294,305	272,372	311,891	310,895	297,939
Castlemaine ...	276,258	266,628	267,040	292,418	292,465
Ararat ...	108,818	117,612	120,425	122,611	170,724
Gippsland ...	145,320	144,278	148,112	150,903	139,924
Totals ...	2,128,896	2,060,885	2,098,574	2,131,188	2,078,936

The total area of the auriferous alluvial and quartz ground actually opened up is 1,063 square miles, and the number of distinct quartz reefs known to be auriferous is 3,398. These statements should be considered in connection with the information given in Tables Nos. 18 and 19.

Many of the quartz mines are now worked at great depths; and there is, as far as can be gathered from the returns, no diminution in the yield of gold in the deeper levels.

There is one shaft at Stawell 1,524 feet in depth, one 1,420 feet, one 1,260 feet, and two more than 1,000 feet in depth.

From the deeper levels in these mines the quartz has yielded as much as 3 ozs. 9 dwts. 2 grs. per ton.

At Clunes, one shaft is 1,012 feet in depth, and another 1,005 feet; and at Sandhurst, one shaft is 856 feet in depth, there are four exceeding 800 feet, and one exceeding 700 feet. The yield in these deep mines at Sandhurst, at the deepest levels, varies from 12 dwts. 22 grs. per ton to 1 oz. 2 dwts. 6 grs. per ton.

Full information respecting the deepest mines in the colony, the yields of gold therefrom, &c., is given quarterly in the published reports of the Mining Registrars.

The total area held as "claims" under the bye-laws of the several Mining Boards, and the area held under leases from the Crown, were, on the 31st December in each year, for the past five years, as follows :—

—	1870.	1871.	1872.	1873.	1874.
	A. R. P.	A. R. P.	A. R. P.	A. R. P.	A. R. P.
Total area held as "claims" ...	67,341 2 0	81,584 2 39	77,495 0 20	69,316 1 14	53,529 3 37
Total area held under leases ...	26,651 2 5 $\frac{3}{4}$	25,383 2 30 $\frac{3}{4}$	33,646 1 8 $\frac{1}{10}$	31,569 2 34	26,601 1 33 $\frac{3}{4}$

A portion, 3,858 a. 3 r. 6 p., of the land held as claims under the bye-laws in 1874 was not being worked, the holders protecting the same by obtaining certificates. Figures relating to the areas thus protected in years past are given in previous reports.

There have been issued since the Leasing Regulations came into force, 9,524 gold-mining leases, for an aggregate area of 175,868 a. 2 r. 20 $\frac{3}{4}$ p. A great number of these have been declared void for the non-fulfilment of the labor covenants of the leases, and others have been surrendered or have lapsed, owing to the expiration of the terms for which they were granted.

Labor employed
on leased lands.

There were 1,996 gold-mining leases in force on the 31st December 1874, and returns have been received relating to 1,951 of these, showing the number of men actually employed on the areas demised. The following statement, compiled from records in the Department of Mines, gives the results for each district :—

Districts.			Number of Leases.	Area.		Number of Men, as per covenants.	Number of Men actually employed, as per returns.
				A.	R. P.		
Ballarat	...	...	121	4,350	0 25	2,471	2,259
Beechworth	...	...	202	3,221	0 11	1,711	789
Sandhurst	...	...	825	6,255	0 3	4,225	3,766
Maryborough	...	...	287	5,286	0 23	2,652	1,116
Castlemaine	...	...	296	3,494	1 17	1,636	1,446
Ararat	...	...	122	2,199	0 12	876	1,070
Gippsland	...	...	98	1,650	1 16	806	529
Totals	...	...	1,951	26,456	0 27	14,377	10,975

Value of claims
and leased lands.

The estimates of the value of the lands held under the bye-laws and under leases from the Crown in the mining districts of the colony are, for the past five years, as follows :—

—	1870.	1871.	1872.	1873.	1874.
	£	£	£	£	£
Estimated value of claims ...	7,684,178	12,275,046	11,820,139	12,431,241	7,424,024

Revenue derived
from the gold-
fields.

The revenue derived directly from the goldfields and mineral districts, exclusive of fees, fines, and forfeitures, was during the last five years as follows :—

—	1870.			1871.			1872.			1873.			1874.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Miners' rights ...	9,934	0	0	10,075	15	0	8,645	0	0	8,199	10	0	6,707	15	0
Business licenses ...	3,206	12	6	2,277	14	2	1,666	15	10	1,702	0	0	1,433	12	6
Rents for leases of auriferous mineral lands ...	24,307	7	0	22,333	16	3	30,363	3	10	15,910	16	0	13,805	0	1
Water-right and searching licenses	1,046	10	0	919	4	7	1,026	5	9	1,013	5	0	1,142	15	0
Totals ...	38,494	9	6	35,606	10	0	41,701	5	5	26,825	11	0	23,089	2	7

On the 17th December 1872 the rent of lands held under gold-mining leases was reduced from One pound sterling per acre per annum to Ten shillings per acre per annum.

Water-rights.

On the 31st December 1874 there were 169 water-right licenses in force. The area held under the licenses was 1,316 a. 2 r. 34 p.; the aggregate length of the races was 394 miles $43\frac{5}{10}$ chains; the maximum quantity of water diverted per diem was 193,188,855 gallons; the aggregate area of the reservoirs constructed was 91 a. 0 r. 26 p.; the capacity of the same 201,364,770 gallons; and the aggregate sum payable per annum as rent was £966.

There were 11 water-right licenses issued during the 1874, under which the licensees were authorized to divert 48,624,000 gallons of water per diem.

The aggregate length of all the water-races used for mining purposes was, on the 31st December 1874, 2,102 miles 61 chains, and the approximate cost of constructing the same was £263,886, being at the rate of £125 9s. 10 $\frac{3}{4}$ d. per mile.

Tables 41, 42, 43, and 44 give full information respecting the water-races constructed for gold-mining purposes in the several districts and divisions of the colony.

Information respecting the kinds and quantities of timber used for mining purposes in each district of the colony, and the cost of the same, is given in Table No. 54.

The value of the timber used, during the past five years, as given by the several Mining Registrars, was as follows:—

—	1870.			1871.			1872.			1873.			1874.		
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
Value of timber used for mining purposes	444,886	14	1	443,163	6	9	467,320	12	0	480,691	10	0	441,731	7	0

The prices paid for crushing quartz and cement are given in Table 30. In the district of Castlemaine the price per ton is as low as Two shillings ; in the Ballarat district from Two shillings and sixpence to Fifteen shillings ; and the highest price paid, Twenty-eight shillings per ton, is in the district of Beechworth

The wages paid for labor, the prices of all materials used in mining, and information relating to the weight and cost of stamp-heads, and shanks or lifters ; the heights the stamp-heads fall ; the number of strokes per minute ; the quantity of quartz crushed per head per diem ; the number of holes per square inch in the gratings ; the quantities of water used per stamp-head, and the quantities of mercury used and lost per stamp-head, are given in Tables 52, 53, and 55.

An account of the receipts, disbursements, and balances in hand of sums lodged with the Wardens' Clerks in the several mining districts, as deposits under the Gold and Mineral Lease and Water-right License Regulations, is given in Table 45. The deposits received during the year 1874 amounted to £3,661 19s. 7d. ; the disbursements to £6,688 10s. 3½d.; and the amount of the balances on hand on the 31st December 1874 was £2,108 5s. 6½d.

Table 47 shows the quantities of gunpowder in stock in the several magazines on the goldfields on the 1st January 1874 ; the quantities issued during the year ; and the quantities in stock on the 31st December 1874.

The number of mining companies registered during the year 1874 was 143 ; the number of shares was 1,968,802 ; and the nominal capital £1,592,213.

Eight companies were wound up during the year, the aggregate nominal shares being 214,000, and the aggregate nominal capital £111,000.

The number of companies registered during the past five years, with the number of shares and the nominal capital, was as follows :—

Year.		Number of Companies.	Number of Shares.	Nominal Capital.		
				£	s.	d.
1870	...	499	8,443,717	6,021,517	0	0
1871	...	1,206	27,076,782	16,989,435	0	0
1872	...	522	11,160,843	6,813,071	0	0
1873	...	385	6,911,424	5,059,857	15	0
1874	...	143	1,968,802	1,592,213	0	0

During the year 1870 twenty-three companies were wound up, with 70,210 shares and a nominal capital of £289,040 ; in 1871 two companies were wound up, with 6,300 shares and a nominal capital of £8,600 ; no companies were wound up

during the year 1872 ; five companies were wound up in 1873, with 116,200 shares and a nominal capital of £51,850 ; and eight companies were wound up in 1874, with 214,000 shares and a nominal capital of £111,000.

New goldfields.

Only four applications were lodged during the year for rewards for the discovery of new goldfields, and the Board appointed to investigate such claims dealt with these. One—that for the discovery of the Avoca Forest goldfield—was considered to be deserving of a reward. The Board recommended that the sum of £140 should be given to the discoverers, and the recommendation was approved of, and the money was voted by Parliament and paid. There is now no difficulty in dealing with such claims. As soon as an application is made, enquiries are instituted, and the facts connected with it are ascertained.

Examination of mining surveyors.

Four candidates presented themselves for examination in mine and land surveying during the year, and one passed.

Business of the Department.

The amount of business transacted in the Department during the years 1873 and 1874 may be estimated from the following figures :—

	1873.	1874.
Number of letters received	23,922	25,190
Correspondence referred from other departments, inwards	9,793	13,478
References outwards	9,538	13,812
Number of accounts received	6,016	5,507
Number of accounts passed	5,995	5,198
Number of schedules passed (in triplicate)	555	484
Number of returns received	6,028	6,175
Number of letters outwards	32,866	33,346

Number of applications for leases and licenses.

The number of applications for leases and licenses dealt with during the year 1874 was as follows :—

Applications lodged for gold-mining leases	367
Applications lodged for mineral leases	3
Applications lodged for water-right licenses	12
Applications lodged for gold-mining leases on reserved lands	5
Total number of applications for leases and licenses dealt with (granted, refused, or abandoned), as notified in the <i>Government Gazette</i>	470

The number of leases declared void during the year for non-fulfilment of the labor covenants, or because the rents were not paid, was 839, for an aggregate area of 13,259 a. 0r. 39½ p.

Attendance of officers.

Mr. Richard Francis, the Chief Clerk, has prepared the usual annual statement, from which it appears that the overtime given by the officers of the Department in Melbourne was 139 ^{1 0}/_{3 8} weeks, and the total period of absence from duty was 168 ¹/₃ weeks.

METALS AND MINERALS OTHER THAN GOLD.

Silver.—180 tons of silver ore were raised during the year, and 11,906 ozs. of silver were obtained, of which 11,146 ozs. 5 dwts. were parted from gold smelted at the Mint.

Tin.—The exports of tin ore during the year were 112 tons 14 cwt., and of tin 86,016 lbs.

Copper.—10 tons 2 cwt. of copper were exported.

Antimony.—There were raised during the year 588 tons 7 cwt. 3 qrs. 9 lbs. of antimony ores ; and 224 tons 7 cwt. of ore and 231 tons of antimony regulus were exported.

Lead.—The quantity of ore raised during the year was 111 tons.

Iron.—Of iron ore 130 tons 10 cwt. were raised.

Coal and Lignite.—The quantity of coal reported as having been raised was 2,909 tons, and the quantity of lignite raised, 750 tons.

Flags and Slates.—1,961 tons 2 cwt. of flagging and 85 tons of slates were raised.

Full information relative to the exploration of mines where metals and minerals other than gold are raised is given in the tables.

The number of miners employed during the quarter ending 31st December 1874 in mining for metals and minerals other than gold was as follows :—

Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.		Silver Miners.	Argentiferous Galena Miners.	Tin Miners.	Copper Miners.	Antimony Miners.	Ironstone Miners.	Coal Miners.	Lignite Miners.	Kaolin Miners.	Slate and Flag Miners.	Totals.	
Ballarat	...	{ Ballarat ...	...	...	...	...	...	27	...	...	...	...	27
		{ Steiglitz ...	...	...	...	...	...	...	...	30	...	...	30
Beechworth	...	Yackandandah	...	...	72	...	...	...	...	...	...	...	72
Sandhurst	...	{ Sandhurst ...	...	...	...	...	1	...	...	...	...	...	1
		{ Heathcote ..	...	...	...	...	34	...	...	...	...	...	34
Maryborough	...	St. Arnaud ...	70	...	...	...	...	...	...	...	...	...	70
Castlemaine	...	{ Castlemaine ...	...	...	...	...	...	...	...	...	...	112	112
		{ St. Andrew's ...	...	...	...	...	21	...	104	..	4	...	129
Ararat	...	Pleasant Creek	...	...	...	...	...	...	...	...	...	2	2
Gippsland	...	{ Mitchell River	...	18	...	...	...	...	...	...	...	...	18
		{ Donnelly's Creek	...	...	...	21	...	...	...	...	...	...	21
		Totals	70	18	72	21	56	27	104	30	4	114	516

The total numbers thus engaged during the past five years were as follows :—

1870	...	248	1873	...	388
1871	...	198	1874	...	516
1872	...	358			

The increase year by year is small, but on the whole satisfactory. No account is taken in these returns of the numbers of persons engaged in reducing works in Melbourne.

The following is an estimate of the Metals and Minerals raised in the colony from the first discovery of the goldfields to 31st December 1874 :—

Gold.—Quantity exported and minted in the colony from the date of the first discovery to the 31st December 1874, 44,414,177 ozs. 4 dwts.,* at £4 per oz. ... £177,821,125

Silver.—Ore raised, 12,468 tons.

Produce of silver from ore treated, 25,479 ozs. 8 dwts., at 5s. 6d. per oz. ... 7,007

Silver parted from gold, 11,146 ozs. 3 dwts. (value already included).

Tin.—Ore exported, 2,601 tons 2 cwt. ... £192,936
 " 92 tons 9 cwt., at £70 per ton ... 6,471
 " 177 tons 10 cwt., at £52 10s. per ton ... 9,318
 " 269 tons 1 cwt. ... 17,551
 " 146 tons 15 cwt. ... 9,524
 " 250 tons ... 17,500
 " 294 tons 19 cwt. ... 20,775
 " 174 tons 16 cwt. ... 11,301
 " 112 tons 14 cwt. ... 6,720
 Tin exported, 3 tons 12 cwt. 3 qrs. 12 lbs., at £140 per ton ... 510
 " 7 tons 16 cwt. ... 729
 " 14 cwt., at £140 per ton ... 98
 " 15 cwt. ... 157
 " 7 tons 19 cwt. ... 1,097
 " 41 tons 10 cwt. ... 5,439
 " 48 tons 16 cwt. ... 5,760
 " 38 tons 8 cwt. ... 3,628
 Tin consumed in Victoria, 163 tons... 16,333

325,847

* From returns furnished by the Honorable the Commissioner of Trade and Customs and the Deputy Master of the Mint, and inclusive of 1,267,241 ozs., which, according to the Registrar-General's tables, were produced in Victoria in 1852-5, but passed through the Customs of New South Wales, Tasmania, and South Australia, and not recorded in Victorian tables. The quantities used and manufactured in the colony cannot be estimated.

Copper.—Ores raised, about 1,255 tons.

Smelted, 31 tons 7 cwt., at £112 per ton	...	...	...	3,511
Regulus, 70 tons 16 cwt.	...	...	...	1,969
Rough copper, 10½ tons	...	...	...	320
Ore exported, 5 cwt.	...	...	...	10
Copper exported, 10 tons 7 cwt.	...	...	...	745

£6,555

Antimony.—Ore raised, 2,955 tons 15 cwt. 26 lbs.

435 tons, at £6 per ton	...	...	...	2,610
272 tons, at £9 per ton	...	...	...	2,448
510 tons, at £7 per ton	...	...	...	3,570
199 tons, at £4 per ton	...	...	...	796
1,661 tons 3 cwt.	...	...	...	13,669
1,575 tons 1 cwt.	...	...	...	12,600
1,573 tons 15 cwt., at £6 per ton	...	...	...	9,442
1,428 tons 3 cwt., at £6 5s. per ton	...	...	...	8,926
588 tons 8 cwt., at £8 per ton	...	...	...	4,707

90,870

Lead.—Ore raised, 100 tons, at £6 per ton...

45 tons	...	...	...	270
100 tons	...	...	...	600
162 tons, at £10 per ton	...	...	...	1,620
111 tons, at £10 per ton	...	...	...	1,110

4,200

Iron.—Ore raised, 182 tons

Coal.—2,043 tons, at £1 10s. per ton

504 tons, at £1 12s. per ton

2,909 tons, at £1 10s. per ton

944

8,233

Lignite.—1,992 tons, at 17s. 6d.

763 tons, at 5s.

750 tons, at 5s.

2,120

Kaolin.—1,757 tons, at £4 per ton

50 tons 2 cwt., at £5 10s. per ton

25 tons 12 cwt., at £5 10s. per ton

7,444

Flagging.—78,660 square yards

1,500 square yards

3,918 tons

1,738 tons

1,960 tons

1,961 tons

35,629

Slates.—11,000, at £8 per 1,000...

160 tons, at £4 per ton

85 tons, at £2 10s. per ton

940

Magnesite.—6¼ tons, at £2 per ton

Diamonds.—About 104 carats, at an average of say £1 per carat

Sapphires, &c.—Numbers cannot be estimated, say

12

104

571

Total ... £178,311,601

The prices of the several ores, &c., have been obtained from persons best acquainted with the market value of them.

R. BROUGH SMYTH,

Secretary for Mines.

Office of Mines,

Melbourne, 15th February 1875.

TABLES.

No. 1.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS for each Quarter during the Year 1874.

Quarter.	BALLARAT.			BEECHWORTH.			SANDHURST.			MARYBOROUGH.		
	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.
First Quarter, ending March 31st	7,866	2,803	10,669	5,392	1,293	6,685	2,850	5,005	7,855	7,487	1,792	9,279
Second Quarter, ending June 30th	7,503	2,791	10,294	5,379	1,278	6,657	2,681	4,782	7,463	6,795	1,892	8,687
Third Quarter, ending Sept. 30th	7,540	2,879	10,419	5,372	1,289	6,661	2,701	4,507	7,208	6,807	1,919	8,726
Fourth Quarter, ending Dec. 31st	7,307	2,750	10,057	5,194	1,222	6,416	2,737	4,526	7,263	6,978	1,809	8,787

Quarter.	CASTLEMAINE.			ARARAT.			GIPPSLAND.			GRAND TOTALS.		
	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.	Alluvial.	Quartz.	Totals.
First Quarter, ending March 31st	4,720	2,985	7,705	2,051	1,171	3,222	1,809	945	2,754	32,175	15,994	48,169
Second Quarter, ending June 30th	4,595	2,653	7,253	2,218	1,336	3,554	1,780	800	2,580	30,951	15,537	46,488
Third Quarter, ending Sept. 30th	4,653	2,489	7,142	2,172	1,315	3,487	1,838	758	2,596	31,083	15,156	46,239
Fourth Quarter, ending Dec. 31st	4,571	2,219	6,790	2,124	1,197	3,321	1,767	750	2,517	30,678	14,473	45,151

NOTE.—The mean number of miners employed during the year was 46,512; and the total quantity of gold exported and received at the Mint was 1,155,971 ozs. 19 dwts., which, at £4 per oz., gives £99 8s. 3·07d. per man per annum. The rate per man per annum for 1873 was £93 16s. 2·62d.; for 1872, £93 17s. 1·47d.; for 1871, £93 6s. 0·62d.; for 1870, £81 0s. 6·46d.; for 1869, £79 7s. 0·87d.; for 1868, £104 18s. 8·75d.; for 1867, £87 1s. 6·91d.; for 1866, £80 8s. 3·87d.; for 1865, £74 4s. 2·09d.; for 1864, £74 1s. 9·29d.; for 1863, £70 9s. 0·42d.; for 1862, £67 14s. 5·11d.; for 1861, £74 15s. 11d.; and for 1860, £79 9s. 3·07d.

No. 2.

SUMMARY.

NUMBER of MINERS employed in the several MINING DISTRICTS during the Quarter ended 31st December 1874.

Mining Districts.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ballarat District	5,012	2,295	2,735	15	7,747	2,310	10,057
Beechworth District	2,339	2,855	1,203	19	3,542	2,874	6,416
Sandhurst District	2,023	714	4,476	50	6,499	764	7,263
Maryborough District	4,497	2,481	1,803	6	6,300	2,487	8,787
Castlemaine District	2,470	2,101	2,210	9	4,680	2,110	6,790
Ararat District	1,249	875	1,172	25	2,421	900	3,321
Gippsland District	1,032	735	750	...	1,782	735	2,517
Totals	18,622	12,056	14,349	124	32,971	12,180	45,151

No. 3.

NUMBER of MINERS employed in the Mining District of BALLARAT during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Central Division	1,528	258	1,084	...	2,612	258	2,870
Southern Division	466	500	52	...	518	500	1,018
Buninyong Division	590	90	140	...	730	90	820
Smythesdale Division	1,020	600	20	...	1,040	600	1,640
Creswick Division	1,120	450	400	...	1,520	450	1,970
Gordon Subdivision	6	...	190	12	196	12	208
Steiglitz Subdivision	110	130	205	...	315	130	445
Blackwood Division and Blue Mountain South Subdivision	160	267	640	3	800	270	1,070
Ballan Subdivision	12	...	4	...	16	...	16
Totals	5,012	2,295	2,735	15	7,747	2,310	10,057

No. 4.

NUMBER of MINERS employed in the Mining District of BEECHWORTH during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Beechworth Division	1,017	875	96	...	1,113	875	1,988
Yackandandah Division	280	360	93	...	373	360	733
Indigo Division	259	142	44	...	303	142	445
Buckland Division	97	1,193	392	1	489	1,194	1,683
Alexandra Subdivision	160	30	140	...	300	30	330
Dry Creek Subdivision	60	100	8	...	68	100	168
Benalla Subdivision ... ..	...	...	...	...	...	...	...
Gaffney's Creek Subdivision	60	12	80	18	140	30	170
Wood's Point Subdivision	143	12	100	...	243	12	255
Big River Subdivision	73	6	40	...	113	6	119
Mitta-mitta Division	90	75	...	...	90	75	165
Jamieson Subdivision	100	50	210	...	310	50	360
Totals	2,339	2,855	1,203	19	3,542	2,874	6,416

No. 5.

NUMBER of MINERS employed in the Mining District of SANDHURST during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Sandhurst Division	1,620	610	3,969	50	5,589	660	6,249
Kilmore Division	40	20	18	...	58	20	78
Heathcote Division and Waranga South Sub-division	229	40	363	...	592	40	632
Waranga North Subdivision	134	44	126	...	260	44	304
Totals	2,023	714	4,476	50	6,499	764	7,263

No. 6.

NUMBER of MINERS employed in the Mining District of MARYBOROUGH during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Maryborough Division	2,060	400	790	...	2,850	400	3,250
Majorca Subdivision	92	20	...	...	92	20	112
Amherst Division	401	110	74	...	475	110	585
Avoca Subdivision	511	1,178	58	...	569	1,178	1,747
Dunolly and Tarnagulla Divisions	300	320	314	6	614	326	940
Korong Division	890	310	300	...	1,190	310	1,500
Redbank and St. Arnaud South Subdivisions	193	83	36	...	229	83	312
St. Arnaud North Subdivision	50	60	231	...	281	60	341
Totals	4,497	2,481	1,803	6	6,300	2,487	8,787

No. 7.

NUMBER of MINERS employed in the Mining District of CASTLEMAINE during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Castlemaine Division	435	335	565	2	1,000	337	1,337
Fryer's Creek Division	951	775	277	...	1,228	775	2,003
Hepburn Division	536	417	703	7	1,239	424	1,663
Taradale and Kyneton Subdivision	182	160	152	...	334	160	494
Tarrangower Division	152	350	346	...	498	350	848
St. Andrew's Division	198	60	145	...	343	60	403
Blue Mountain North Subdivision	16	4	22	...	38	4	42
Totals	2,470	2,101	2,210	9	4,680	2,110	6,790

No. 8.

NUMBER of MINERS employed in the Mining District of ARARAT during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Ararat Division	130	410	40	...	170	410	580
Pleasant Creek Division	561	205	1,107	25	1,668	230	1,898
Barkly Division	325	150	...	...	325	150	475
Raglan Division	233	110	25	...	258	110	368
Totals	1,249	875	1,172	25	2,421	900	3,321

No. 9.

NUMBER of MINERS employed in the Mining District of GIPPSLAND during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINERS.		QUARTZ MINERS.		TOTALS.		Grand Totals.
	European.	Chinese.	European.	Chinese.	European.	Chinese.	
Omeo Subdivision	70	413	25	...	95	413	508
Mitchell River and Boggy Creek Subdivisions	154	130	32	...	186	130	316
Crooked River Division	186	105	37	...	223	105	328
Jericho Division	90	45	7	...	97	45	142
Donnelly's Creek Division	93	2	62	...	155	2	157
Stringer's Creek Division	114	...	500	...	614	...	614
Russell's Creek Subdivision	105	...	8	...	113	...	113
Bendoc Subdivision	25	40	49	...	74	40	114
Tarwin Subdivision	170	...	30	...	200	...	200
Traralgon Subdivision	25	...	...	...	25	...	25
Totals	1,032	735	750	...	1,782	735	2,517

No. 10.

SUMMARY.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the several MINING DISTRICTS during the Quarter ended 31st December 1874.

Mining Districts.		ALLUVIAL MINING.													
		Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.
		Total Number.	Aggregate Horse-power.												
Ballarat District ...	...	185	5,705	177	7	164	56	18	1,530	1	71	5	5	76	4
Beechworth District	...	45	730	15	...	52	23	43	11,855	14	193	142	...	...	4
Sandhurst District	...	19	300	...	...	140	10	32	30	...	59	...	6	151	1
Maryborough District	...	67	1,938	59	...	388	78	75	127	...	83	3	82	154	5
Castlemaine District	...	13	291	6	...	231	28	61	529	8	116	7	2	46	1
Ararat District ...	...	22	328	7	1	29	11	6	68	...	13	...	29	106	...
Gippsland District	...	2	25	2	...	10	10	...	1,397	2	69	67	...	58	2
Totals ...	...	353	9,317	266	8	1,014	216	235	15,536	25	604	224	124	591	17

Mining Districts.		QUARTZ MINING.									Approximate Value of all Mining Plant in the Districts.
		Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.	Whims.	Whips or Pulleys.	Boring Machines used in Blasting.	
		Total Number.	Aggregate Horse-power.								
Ballarat District ...	...	135	3,348	10	1,121	22	...	55	15	2	£ 422,448
Beechworth District	...	69	896	44	1,014	9	1	17	11	...	249,856
Sandhurst District	...	232	4,216	2	1,428	3	...	223	269	1	505,580
Maryborough District	...	110	2,070	...	872	3	...	140	133	...	297,939
Castlemaine District	...	160	3,044	3	1,151	3	4	138	122	...	292,465
Ararat District ...	...	41	1,411	...	344	...	...	51	15	...	170,724
Gippsland District	...	41	564	16	501	1	26	6	...	1	139,924
Totals ...	...	788	15,549	75	6,431	41	31	630	565	4	2,078,936

NOTE.

In the Ballarat District the machinery used in alluvial mining shows a decrease, as compared with the returns for 1873, of 12 steam-engines, 224 horse-power, 36 steam puddling machines, 4 buddles, 42 horse puddling machines, 20 whims, 7 whips or pulleys, 5 sluices, toms, and sluice-boxes, 2 quicksilver and compound cradles, and 5 boring machines; and an increase of 30 pumps, and 57 stamp-heads (crushing cement). In quartz mining there is a decrease of 37 horse-power in the steam-engines, 2 crushing machines driven by other power than steam, 73 stamp-heads, 6 buddles, 2 winding, washing, pumping, or other machines moved by water-power, and 7 whims; and an increase of 4 steam-engines, and 2 whips or pulleys. The value of all mining plant in the district shows a decrease of £72,220.

In the Beechworth District the machinery used in alluvial mining shows an increase of 1 steam-engine, 19 horse-power; and a decrease of 3 horse puddling machines, 1 whim, 8 whips or pulleys, 2,051 sluices, toms, or sluice-boxes, 2 pumps, 6 water-wheels, and 1 boring machine. In quartz mining there is an increase of 4 steam-engines and 37 horse-power, and 3 buddles; and a decrease of 10 stamp-heads, and 1 whim. The value of all mining plant in the district shows a decrease of £6,439.

In the Sandhurst District the machinery used in alluvial mining shows a decrease of 13 horse puddling machines, 3 whips or pulleys, 24 sluices, toms, or sluice-boxes, 40 pumps, and 12 stamp-heads (crushing cement); and an increase of 10 horse-power in the steam-engines. In quartz mining there is an increase of 83 horse-power in the steam-engines, and 5 stamp-heads; and a decrease of 3 steam-engines, 5 whims, and 13 whips or pulleys. The value of all mining plant in the district has increased £2,182.

In the Maryborough District the machinery used in alluvial mining shows a decrease of 4 steam-engines, 149 horse-power, 6 steam puddling machines, 27 horse puddling machines, 21 sluices, toms, and sluice-boxes, 7 pumps, 4 quicksilver and compound cradles, and 2 boring machines; and an increase of 4 whips or pulleys, and 1 water-wheel. In quartz mining there is an increase of 1 steam-engine, 53 horse-power in the steam-engines, 42 stamp-heads, 1 buddle, 15 whips or pulleys, and 8 whims. The value of all mining plant in the district has decreased £12,556.

In the Castlemaine District the machinery used in alluvial mining shows a decrease of 1 steam-engine, 10 horse-power, 1 steam puddling machine, 33 horse puddling machines, 4 whims, 49 sluices, toms, and sluice-boxes, 16 pumps, and 71 quicksilver and compound cradles; and an increase of 1 whip or pulley, 8 hydraulic hoses, and 2 water-wheels. In quartz mining there is a decrease of 5 steam-engines and 252 horse-power, 1 crushing machine driven by other power than steam, 34 whims, and 99 whips or pulleys; and an increase of 10 stamp-heads, and 2 winding, washing, pumping, or other machines moved by water-power. The value of all mining plant in the district shows an increase of £47.

In the Ararat District the machinery used in alluvial mining shows an increase of 7 steam-engines, 87 horse-power, 6 steam puddling machine, 1 buddle, 14 sluices, toms, and sluice-boxes, and 56 stamp-heads (crushing cement); and a decrease of 9 horse puddling machines, 9 whims, 8 whips or pulleys, 2 pumps, and 3 boring machines. In quartz mining there is an increase of 3 steam-engines and 379 horse-power, and 3 whips or pulleys; and a decrease of 53 stamp-heads. The value of all mining plant in the district has increased £48,113.

In the Gippsland District the machinery used in alluvial mining shows an increase of 5 horse-power in steam-engines, 1 steam puddling machine, 1 whim, 2 water-wheels, and 53 stamp-heads (crushing cement); and a decrease of 10 horse puddling machines, 80 sluices, toms, and sluice-boxes, and 10 pumps. In quartz mining there is a decrease of 5 steam-engines, 235 horse-power, and 1 whip or pulley; and an increase of 1 crushing machine driven by other power than steam, 9 stamp-heads, 26 winding, washing, pumping, or other machines moved by water-power, and 1 boring machine. The value of all mining plant in the district has decreased £10,379.

Comparing the totals of machinery employed on the goldfields in 1874 with the totals for 1873, the machinery used in alluvial mining shows a decrease of 9 steam-engines, 262 horse-power, 36 steam puddling machines, 3 buddles, 137 horse puddling machines, 33 whims, 24 whips or pulleys, 2,216 sluices, toms, and sluice-boxes, 47 pumps, 1 water-wheel, 77 quicksilver and compound cradles, and 10 boring machines; and an increase of 8 hydraulic hoses, and 159 stamp-heads (crushing cement). In quartz mining there is an increase of 28 horse-power in steam-engines, 26 winding, washing, pumping, or other machines moved by water-power, and 1 boring machine; and a decrease of 1 steam-engine, 2 crushing machines driven by other power than steam, 70 stamp-heads, 2 buddles, 39 whims, and 93 whips or pulleys. There is a decrease in the total value of all mining plant on the goldfields, as compared with 1873, of £52,252.

No. 11.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF BALLARAT DURING THE QUARTER ENDED 31st DECEMBER 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Divisions or Subdivisions.		
	Steam-engines employed in Winding, Pumping, &c.		Steam Pudding Machines.	Buddles.	Horse Puddling Machines.	Whins.	Whips or Pulleys.	Sluice-boxes, and Stakes, Toms, and	Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crushing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		(Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Whins.		Whips or Pulleys.	Boring Machines used in Blasting.
	Total Number.	Aggregate Horse-power.													Total Number.	Aggregate Horse-power.							
Central Division ...	73	3,282	71	3	19	22	11	39	1	29	...	1	...	1	1	50	1,074	422	3	11	7	...	146,850
Southern Division ...	2	35	4	...	30	3	2	50	1	7	...	6	...	1	1	3	60	20	...	2	...	...	18,500
Buninyong Division ...	22	500	14	2	24	8	2	28	...	20	...	...	...	...	...	8	210	79	1	1	...	...	35,000
Smythesdale Division ...	58	1,270	60	2	11	7	...	63	...	...	3	10	...	1	1	25	30	5	...	...	...	...	25,000
Creswick Division ...	30	618	24	...	80	16	5	800	...	...	...	60	1	1	25	914	167	13	...	...	...	...	102,500
Gordon Subdivision ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	177	...	...	...	...	...	...	9,503
Stieglitz Subdivision ...	...	...	...	...	...	...	...	100	...	...	...	...	...	...	12	308	...	...	...	14	7	...	21,095
Blackwood Division and Blue Mountain South Subdivision ...	...	...	...	...	...	...	...	450	...	15	2	...	...	...	21	535	9	...	...	20	...	...	63,000
Ballan Subdivision ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	10	...	...	...	2	...	...	1,000
Totals ...	185	5,705	177	7	164	56	18	1,530	1	71	5	76	4	4	135	3,348	10	1,121	22	55	15	2	422,418

No. 12.

NUMBER OF MACHINES EMPLOYED IN ALLUVIAL AND QUARTZ MINING IN THE MINING DISTRICT OF BEECHWORTH DURING THE QUARTER ENDED 31st DECEMBER 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of all Mining Plant in the Divisions or Subdivisions.
	Steam-engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whins.	Whips or Pulleys.	Sluice-boxes, and Stakes, Toms, and	Hydraulic Hoses.	Pumps.	Water-wheels.	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Windmills, or other Pumping, &c.	Water-power.	Whins.	Whips or Pulleys.		
	Total Number.	Aggregate Horse-power.									Total Number.	Aggregate Horse-power.									
Beechworth Division	25	270	4	8	3	5,200	3	52	20	2	6	89	4	59	...	...	...	...	...	47,950
Yackandandah Division	1	6	...	...	...	3,000	3	22	20	...	6	85	2	54	...	...	...	...	...	10,150
Indigo Division	11	338	39	10	33	118	...	15	...	1	4	46	...	32	...	...	...	...	...	22,898
Blackland Division	2	22	...	...	...	2,000	...	46	46	1	19	213	16	282	...	...	...	...	...	37,000
Alexandra Subdivision	6	91	4	5	...	40	...	2	4	...	10	141	1	98	...	...	...	...	...	19,920
Dry Creek Subdivision	...	...	...	...	...	400	...	...	4	...	...	...	...	...	...	...	...	...	...	400
Benalla Subdivision	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gadney's Creek Subdivision	...	...	...	...	...	175	...	12	12	...	6	78	12	176	1	...	...	...	...	30,044
Wood's Point Subdivision	...	...	...	...	...	260	...	16	16	...	9	115	7	207	2	...	...	...	...	51,671
Big River Subdivision	...	...	...	...	...	180	...	8	8	...	5	52	...	42	...	...	...	...	...	10,683
Mitta-mitta Division	...	...	...	...	...	32	...	20	12	...	...	...	...	...	...	...	...	...	...	1,200
Jameson Subdivision	...	...	...	...	...	40	...	...	...	...	4	47	2	61	...	...	...	...	...	15,000
Totals	45	730	15	23	43	11,855	14	193	142	4	69	896	44	1,014	9	17	11	...	...	249,836

No. 13.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of SANDHURST during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.										Approximate Value of Divisions or Subdivisions.
	Steam-engines employed in Winding, Pumping, &c.		Horse Puddling Machines.	Whlms.	Whips or Pulleys.	Sluices, Toms, and Stutes-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other vein-stuff).	Budds.	Whlms.	Whips or Pulleys.	Boring Machines used in Blasting.			
	Total Number.	Aggregate Horse- power.									Total Number.	Aggregate Horse- power.									
	Sandhurst Division	19	300	100	6	24	..	9	6	151	1	206	3,750	..	1,210	3	210	245	1	469,700	
Kilmore Division	1	25	2	16	..	..	..	..	1,800		
Heathcote Division and Waranga South Subdivision	40	4	8	30	50	..	..	..	17	248	..	129	..	7	18	..	20,080		
Waranga North Subdivision	8	193	..	78	..	6	6	..	14,000		
Totals	140	10	32	30	59	6	151	1	232	4,216	2	1,428	3	223	269	1	505,580		

No. 14.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of MARYBOROUGH during the Quarter ended 31st December 1874.

ALLUVIAL MINING.										QUARTZ MINING.						Approximate Value of all Mining Plant in the Divisions or Subdivisions.			
Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whlms.	Whips or Pulleys.	Sluices, Toms, and Stutes-boxes.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crush-Ing Cement).	Boiling Machines.	Steam-engines employed in Winding, Pumping, Crushing, &c.		Stamp-heads (crush-Ing Quartz or other vein-stuff).	Bundles.		Whlms.	Whips or Pulleys.	
												Total Number.	Aggregate Horse-power.						
Maryborough Division	42	1,468	39	178	34	10	6	4	2	36	148	4	27	614	209		2	30	27	150,202
Majorca Subdivision	9	211	6	8	5	...	9	6	...	8	...	...	...	...	...	...	1	...	8,024
Amherst Division	9	150	10	30	10	22	60	70	1	25	...	1	5	74	28	...	5	14	16,125
Avoca Subdivision	3	57	4	71	9	23	45	3	...	8	...	...	6	94	70	1	8	7	11,948
Dunolly and Tarnagulla Divisions	2	32	...	61	16	8	...	...	...	15	...	...	36	684	265	...	30	24	60,024
Korong Division	2	20	...	22	2	11	...	...	...	6	...	...	15	234	174	...	50	31	18,000
Redbank and St. Arnaud South Subdivisions	...	...	...	14	2	1	7	...	...	...	...	...	6	88	36	...	4	4	7,321
St. Arnaud North Subdivision	...	...	...	9	...	...	...	...	...	...	...	...	15	282	90	...	17	26	26,800
Totals	67	1,938	59	388	78	75	127	83	3	82	154	5	110	2,070	872	3	140	133	297,939

No. 15.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of CASTLEMAINE during the Quarter ended 31st December 1874.

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.								Approximate Value of all Mining Plant in the Divisions or Subdivisions.			
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluice-boxes, and Stamps, Toms, and Hydraulic Hoses.	Pumps.	Water-wheels.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crush- ing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by Water-power.		Whims.	Whips or Pulleys.	
	Total Number.	Aggregate Horse-power.											Total Number.	Aggregate Horse-power.								
Castlemaine Division	2	38	4	107	..	1	85	6	11	..	..	..	..	46	830	..	329	..	..	29	37	76,735
Fryer's Creek Division	5	88	1	56	6	15	306	..	38	..	36	..	19	461	..	147	..	1	..	9	15	69,524
Hepburn Division	1	26	1	32	2	45	133	..	43	..	10	1	33	535	..	217	1	3	57	57	38,154	
Taradale and Kyneton Subdivision	5	139	..	9	20	..	5	..	3	..	..	..	19	331	..	152	..	..	..	..	..	37,720
Tarrangower Division	..	..	..	17	..	..	..	..	16	..	..	..	34	767	..	230	..	..	..	41	12	63,752
St. Andrew's Division	..	..	..	2	..	..	..	2	..	2	..	..	7	98	..	68	2	..	..	2	1	4,680
Blue Mountain North Subdivision	..	..	..	2	..	..	..	..	..	..	..	..	2	22	..	8	..	..	..	..	..	1,900
Totals	13	291	6	231	28	61	529	8	116	7	2	46	1	160	3,044	3	1,151	3	4	138	122	292,465

No. 16.

NUMBER of MACHINES employed in ALLUVIAL and QUARTZ MINING in the Mining District of ARARAT during the Quarter ended 31st December 1874

Mining Surveyors and Registrars' Divisions.	ALLUVIAL MINING.										QUARTZ MINING.					Approximate Value of all Mining Plant in the Divisions.
	Steam-engines employed in Winding, Pumping, &c.	Steam Puddling Machines.	Buddles.	Horse Puddling Machines.	Whims.	Whips or Pulleys.	Sluices, Toms, and Snice-boxes.	Pumps.	Quicksilver and Compound Cradles.	Stamp-heads (crush- ing Cement).	Steam-engines employed in Winding, Pumping, Crushing, &c.		Stamp-heads (crush- ing Quartz or other vein-stuff).	Whims.	Whips or Pulleys.	
											Total Number.	Aggregate Horse-power.				
Ararat Division	4	35	1	11	3	4	30	12	4	26	4	92	30	2	8	14,260
Pleasant Creek Division	10	160	...	1	4	...	25	...	25	70	36	1,309	306	48	10	143,289
Barkly Division	1	10	...	7	3	...	3	...	...	10	...	...	...	...	...	2,525
Raglan Division	7	123	...	10	1	2	10	1	...	...	1	10	8	1	2	10,700
Totals	22	328	7	29	11	6	68	13	29	106	41	1,411	344	51	15	170,724

Mining Surveyors and Registrars' Divisions and Subdivisions.	ALLUVIAL MINING.										QUARTZ MINING.								Approximate Value of all Mining Plant in the Divisions or Subdivisions.	
	Steam-engines employed in Winding, Pumping, &c.		Steam Puddling Machines.	Horse Puddling Machines.	Whims.	Sluices, Toms, and Sluice-boxes.	Hydraulic Hoses.	Pumps.	Water-wheels.	Stamp-heads crushing Cement.	Boring Machines.	Steam-engines employed in Winding, Pumping, &c.		Crushing Machines driven by other power than Steam.	Stamp-heads (crushing Quartz or other vein-stuff).	Buddles.	Winding, Washing, Pumping, or other Machines moved by water-power.	Whims.	Boring Machines (used in blasting).	
	Number.	Aggregate Horse-power.										Number.	Aggregate Horse-power.							
Omeo Subdivision	875	2	21	21	...	...	1	17	2	23	...	...	1	...	£ 6,315
Mitchell River and Boggy Creek Subdivisions	2	22	...	17	...	...	1	...	1,700
Crooked River Division	200	...	20	13	...	...	10	137	7	126	...	...	...	1	32,222
Jericho Division	150	...	20	20	58	...	5	70	...	58	...	20	...	...	18,672
Donnelly's Creek Division	1	24	...	...	...	...	...	5	58	...	51	...	...	...	...	10,500
Stringer's Creek Division	12	194	2	176	1	6	...	...	61,079
Russell's Creek Subdivision	2	2	90	...	7	5	...	...	1	8	2	12	...	...	1	...	1,750
Bendoc Subdivision	40	...	8	...	...	...	3	38	2	30	...	...	...	...	3,211
Tarwin Subdivision ...	2	25	2	8	7	13	...	1	...	...	1	2	20	1	8	...	...	3	...	4,430
Traralgon Subdivision	5	...	...	...	...	1	...	...	...	...	...	...	...	...	45
Totals ...	2	25	2	10	10	1,397	2	69	67	58	2	41	564	16	501	1	26	6	1	139,924

SUMMARY.

Mining Districts.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.
Ballarat District	206	152
Beechworth District	911	280 $\frac{3}{4}$
Sandhurst District	757	141
Maryborough District	566	82 $\frac{3}{4}$
Castlemaine District	397	165 $\frac{1}{4}$
Ararat District	77	83 $\frac{1}{4}$
Gippsland District	484	158
Totals	3,398	1,063

No. 19.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BALLARAT ...	Central Division	24	39	
	Southern Division	16	8½	
	Buninyong Division	13	16	
	Smythesdale Division	11	16½	
	Creswick Division	16	13	
	Gordon Subdivision	19	3½	
	Steiglitz Subdivision	7½	50	
	Blackwood Division and Blue Mountain South Subdivision	30	4½	
	Ballan Subdivision	3	1	
	Totals	205	152	

No. 19.—TABLE showing Number of distinct Quartz Reefs actually proved to be Auriferous, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Number of distinct Quartz Reefs proved to be Auriferous.	Extent in Square Miles of Auriferous Alluvial and Quartz Ground worked upon.	Remarks.
BEECHWORTH	Beechworth Division	98	47	
	Yackandandah Division	80	12	
	Indigo Division	25	7 $\frac{1}{4}$	
	Buckland Division	481	60	
	Alexandra Subdivision	71	35	
	Dry Creek Subdivision ... ..	...	5 $\frac{1}{2}$	
	Benalla Subdivision	3	10	
	Gaffney's Creek Subdivision	18	24	
	Wood's Point Subdivision	95	18	
	Big River Subdivision	14	33	
	Mitta-mitta Division ... ..	...	20	
	Jamieson Subdivision	26	9	
	Totals	911	280 $\frac{3}{4}$	
SANDHURST	Sandhurst Division	318	22	
	Kilmore Division	127	27	
	Heathcote Division and Waranga South Subdivision	202	81	
	Waranga North Subdivision	110	11	
	Totals	757	141	
MARYBOROUGH	Maryborough Division	161	5	
	Majorca Subdivision	1	2 $\frac{1}{2}$	
	Amherst Division	30	5	
	Avoca Subdivision	20	18 $\frac{1}{2}$	
	Dunolly and Tarnagulla Divisions	185	16	
	Korong Division	72	17	
	Redbank and St. Arnaud South Subdivisions	28	11 $\frac{3}{4}$	
	St. Arnaud North Subdivision	69	7	
	Totals	566	82 $\frac{3}{4}$	
CASTLEMAINE	Castlemaine Division	103	9 $\frac{1}{4}$	
	Fryer's Creek Division	37	28 $\frac{3}{4}$	
	Hepburn Division	88	82	
	Taradale and Kyneton Subdivision	19	22	
	Tarrangower Division	74	4 $\frac{1}{4}$	
	St. Andrew's Division	72	15	
	Blue Mountain North Subdivision	4	4	
	Totals	397	165 $\frac{1}{4}$	
ARARAT	Ararat Division	26	34	
	Pleasant Creek Division	37	27	
	Barkly Division	9	16	
	Raglan Division	5	6 $\frac{1}{4}$	
	Totals	77	83 $\frac{1}{4}$	
GIPPSLAND	Omeo Subdivision	20	10	
	Mitchell River and Boggy Creek Subdivisions	18	23	
	Crooked River Division	350	49 $\frac{1}{2}$	
	Jericho Division	30	26	
	Donnelly's Creek Division	17	6 $\frac{1}{2}$	
	Stringer's Creek Division	15	8	
	Russell's Creek Subdivision	14	4	
	Bendoc Subdivision	15	26	
	Tarwin Subdivision	4	3	
	Traralgon Subdivision	1	2	
	Totals	484	158	

No. 20.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1874 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Tons Crushed.		Total Produce.			Average Yield per Ton.		
	tons	cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.
Ballarat District	276,409	16	105,888	10	15	0	7	15 88
Beechworth District	73,125	15	37,364	12	22	0	10	5 26
Sandhurst District	323,493	0	230,726	9	2	0	14	6 35
Maryborough District	31,903	0	15,072	6	2	0	9	10 77
Castlemaine District	156,146	10	75,789	13	18	0	9	16 98
Ararat District	63,757	0	53,684	5	7	0	18	9 80
Gippsland District	42,234	8	49,694	19	11	1	3	12 79
Totals	967,069	9	573,220	17	5	0	11	20 51

NOTE.—The above table does not show the total quantity of quartz crushed in the several localities, but only the yield of certain "crushings" respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district as regards quartz mining, the tables relating to machinery should be examined and compared.

Since the first publication of the statistics, information has been obtained concerning 11,441,638 tons 6 cwt. which have been crushed, which yielded 6,447,640 ozs. 6 dwts. of gold, being an average of 11 dwts. 6 49 grs. per ton.

No. 21.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ Crushed in 1874 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.		Total Produce.			Average Yield per Ton.			Remarks.
		tons	cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.	
BALLARAT	Central Division	104,256	0	29,173	0	22	0	5	14.31	
	Southern Division	6,132	0	1,137	7	0	0	3	17.02	
	Buninyong Division	14,810	0	2,359	10	15	0	3	4.47	
	Smythesdale Division	166	6	49	10	0	0	5	22.87	
	Creswick Division	91,427	0	28,926	10	9	0	6	7.86	
	Gordon Subdivision	17,479	0	21,397	18	10	1	4	11.61	
	Steiglitz Subdivision	7,797	0	7,537	2	0	0	19	8	
	Blackwood Division and Blue Mountain South Subdivision	34,232	10	15,196	6	7	0	8	21.07	
	Ballan Subdivision	110	0	111	5	0	1	0	5.45	
	Totals	276,409	16	105,888	10	15	0	7	15.88	
BEECHWORTH	Beechworth Division	6,384	0	4,717	9	0	0	14	18.69	
	Yackandandah Division	3,155	0	1,529	14	16	0	9	16.73	
	Indigo Division	2,032	15	2,258	7	0	1	2	5.27	
	Buckland Division	29,609	0	16,013	0	12	0	10	19.59	
	Alexandra Subdivision	1,535	0	1,321	1	5	0	17	5.10	
	Dry Creek Subdivision ... ..	...	...	...	...	...	...	...	...
	Benalla Subdivision ... ..	...	...	...	...	...	...	...	...
	Gaffney's Creek Subdivision	8,980	0	1,755	6	10	0	3	21.82	
	Wood's Point Subdivision	9,939	0	3,595	12	0	0	7	5.64	
	Big River Subdivision	4,988	10	1,559	0	0	0	6	6	
	Mitta-mitta Division ... ..	...	...	...	...	...	...	...	...
	Jamieson Subdivision	6,502	10	4,615	2	3	0	14	4.67	
	Totals	73,125	15	37,364	12	22	0	10	5.26	
SANDHURST	Sandhurst Division	316,265	0	225,702	9	17	0	14	6.55	
	Kilmore Division	320	0	80	0	0	0	5	0	
	Heathcote Division and Waranga South Subdivision	1,850	0	1,206	2	3	0	13	0.93	
	Waranga North Subdivision	5,058	0	3,737	17	6	0	14	18.72	
	Totals	323,493	0	230,726	9	2	0	14	6.35	
MARYBOROUGH	Maryborough Division	8,936	0	4,450	2	9	0	9	23.04	
	Majorca Subdivision	55	0	99	5	0	1	14	5.37	
	Amherst Division	3,738	10	1,470	9	3	0	7	20.79	
	Avoca Subdivision	2,338	0	845	16	5	0	7	5.64	
	Dunolly and Tarnagulla Divisions	4,407	0	1,664	15	6	0	7	13.32	
	Korong Division	4,398	0	1,897	6	16	0	8	15.07	
	Redbank and St. Arnaud South Subdivisions	1,640	0	652	5	17	0	7	22.91	
	St. Arnaud North Subdivision	6,387	10	3,992	5	18	0	12	12	
	Totals	31,903	0	15,072	6	2	0	9	10.77	
CASTLEMAINE	Castlemaine Division	35,249	0	12,692	10	19	0	7	4.83	
	Fryer's Creek Division	24,331	0	9,254	2	20	0	7	14.56	
	Hepburn Division	44,921	0	15,411	9	16	0	6	20.67	
	Taradale and Kyneton Subdivision	28,622	0	11,340	17	22	0	7	22.18	
	Tarrangower Division	21,054	0	24,563	12	17	0	3	8.01	
	St. Andrew's Division	1,969	10	2,526	19	20	1	5	15.87	
	Blue Mountain North Subdivision ... ..	...	...	...	...	...	...	...	...
	Totals	156,146	10	75,789	13	18	0	9	16.98	
ARARAT	Ararat Division	284	0	79	9	6	0	5	14.30	
	Pleasant Creek Division	62,924	0	58,483	18	1	0	18	14.12	
	Barkly Division ... ..	...	...	...	...	...	...	...	...
	Raglan Division	549	0	120	18	0	0	4	9.70	
	Totals	63,757	0	58,684	5	7	0	18	9.80	
GIPPSLAND	Omeo Subdivision	355	8	319	17	16	0	18	0.03	
	Mitchell River and Boggy Creek Subdivisions	1,140	0	673	13	0	0	11	19.64	
	Crooked River Division	1,832	0	1,185	1	1	0	12	22.49	
	Jericho Division	530	0	66	5	0	0	2	12	
	Donnelly's Creek Division	1,115	0	2,015	7	0	0	16	3.59	
	Stringer's Creek Division	36,043	0	44,026	15	18	1	4	10.32	
	Russell's Creek Subdivision	325	0	169	0	0	0	10	9.60	
	Bendoc Subdivision	140	0	67	0	0	0	9	13.71	
	Tarwin Subdivision	754	0	1,172	0	0	1	11	2.10	
	Traralgon Subdivision ... ..	...	...	...	...	...	...	...	...
	Totals	42,231	8	49,694	19	11	1	3	12.79	

No. 22.**SUMMARY.**

AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, MULLOCK, &c., Crushed in 1874 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.				Tons Crushed.	Total Produce.	Average Yield per Ton.			Remarks.
				tons. ^s	ozs. dwts. grs.	ozs. dwts. grs.			
Ballarat District	...	...	...	14,119	2,765 9 12	0	3	22'01	
Beechworth District	..	...	...	1,278	187 13 6	0	2	22'48	
Sandhurst District	...	..	...	8,215	510 14 4	0	1	5'84	
Maryborough District	...	...	...	9,148	1,522 19 6	0	3	7'91	
Castlemaine District	...	...	...	33,850	1,640 4 21	0	0	23'25	
Ararat District	...	...	...	2,829	239 10 9	0	1	16'63	
Gippsland District	...	...	...	...	...	...	...	...
Totals	...	...	...	69,439	6,866 11 10	0	1	23'46	

NOTE.—From 1864 to 1874, inclusive, 1,663,033 tons of Quartz Tailings, &c., were crushed, and yielded 299,117 ozs. 4 dwts. 2 grs. of gold, being an average of 3 dwts. 14'33 grs. per ton.

No. 23.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of QUARTZ TAILINGS, MULLOCK, &c., Crushed in 1874 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	14,119	2,765 9 12	0 3 22'01	
	Southern Division				
	Buninyong Division				
	Smythesdale Division				
	Creswick Division				
	Gordon Subdivision				
	Steiglitz Subdivision				
	Blackwood Division and Blue Mountain South Subdivision				
	Ballan Subdivision				
	Totals	14,119	2,765 9 12	0 3 22'01	
BEECHWORTH	Beechworth Division	42	7 16 0	0 3 11'42	
	Yackandandah Division ... ..	...	...	...
	Indigo Division	575	49 0 0	0 1 16'90	
	Buckland Division	120	17 0 0	0 2 20	
	Alexandra Subdivision	541	113 17 6	0 4 5'02	
	Dry Creek Subdivision ... ..	...	...	...
	Benalla Subdivision ... ..	...	...	...
	Gaffney's Creek Subdivision ... ..	...	...	...
	Wood's Point Subdivision ... ..	...	...	...
	Big River Subdivision ... ..	...	...	...
	Mitta-mitta Division ... ..	...	...	...
	Jamieson Subdivision ... ..	...	...	...
	Totals	1,278	187 13 6	0 2 22'48	
SANDHURST	Sandhurst Division	3,699	273 9 0	0 1 11'43	
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision	2,605	134 9 22	0 1 0'78	
	Waranga North Subdivision	1,911	102 15 6	0 1 1'81	
	Totals	8,215	510 14 4	0 1 5'84	

No. 23.—TABLE showing the Average Yield of Gold from certain parcels of Quartz Tailings, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
MARYBOROUGH ...	Maryborough Division	1,178	91 17 0	6 1 13'42	
	Majorca Subdivision ... ..	...	...	...
	Amherst Division	2,965	321 0 0	0 2 3'96	
	Avoca Subdivision	182	8 1 8	0 0 21'27	
	Dunolly and Tarnagulla Divisions ...	6	0 12 0	0 2 0	
	Korong Division ... ..	...	...	...
	Redbank and St. Arnaud South Subdivisions	2,592	697 5 22	0 5 9'12	
	St. Arnaud North Subdivision ...	2,225	404 3 0	0 3 15'18	
	Totals	9,148	1,522 19 6	0 3 7'91	
CASTLEMAINE ...	Castlemaine Division	1,481	102 14 12	0 1 9'29	
	Fryer's Creek Division	782	217 2 13	0 5 13'27	
	Hepburn Division	659	89 1 12	0 2 16'88	
	Taradale and Kyneton Subdivision ...	...	...	...
	Tarrangower Division	30,858	1,225 15 15	0 0 19'06	
	St. Andrew's Division	70	5 10 17	0 1 13'95	
	Blue Mountain North Subdivision ...	...	...	...
	Totals	33,850	1,640 4 21	0 0 23'25	
ARARAT ...	Ararat Division	36	2 13 16	0 1 11'78	
	Pleasant Creek Division	2,793	236 16 17	0 1 16'70	
	Barkly Division ... ..	...	...	...
	Raglan Division ... ..	...	...	...
	Totals	2,829	239 10 9	0 1 16'63	
GIPPSLAND ...	Omeo Subdivision	Nil	Nil	Nil	
	Mitchell River and Boggy Creek Subdivisions				
	Crooked River Division				
	Jericho Division				
	Donnelly's Creek Division				
	Stringer's Creek Division				
	Russell's Creek Subdivision				
	Bendoc Subdivision				
	Tarwin Subdivision				
	Traralgon Subdivision				
	Totals	Nil	Nil	Nil	

No. 24.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1874 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
	tons cwt.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District	833 15	2,156 19 6	2 11 17'78	
Beechworth District	498 5	699 9 11	1 8 1'85	
Sandhurst District	3,621 0	13,617 11 16	3 15 5'14	
Maryborough District	889 0	344 5 8	0 7 17'38	
Castlemaine District	398 0	992 15 12	2 9 21'31	
Ararat District	0 10	9 14 18	19 9 12	
Gippsland District	485 5	1,120 18 14	2 6 4'80	
Totals	6,725 15	18,941 14 13	2 16 7'82	

NOTE.—From 1869 to 1874, inclusive, 25,445 tons 4 cwt. of pyrites, &c., were operated on, and yielded 70,551 ozs. 0 dwts. 14 grs. of gold, being an average of 2 ozs. 15 dwts. 10'88 grs. per ton.

No. 25.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of PYRITES and BLANKETINGS operated on in 1874 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Quantity operated on.	Total Produce.	Average Yield per Ton.	Remarks.
		tons cwt.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division	145 0	221 17 6	1 10 14'44	
	Southern Division ... ..	...	...	...
	Buninyong Division ... ..	...	...	...
	Smythesdale Division ... ..	...	...	...
	Creswick Division	678 15	1,901 18 0	2 16 0'99	
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision	5 0	20 0 0	4 0 0	
	Blackwood Division and Blue Mountain South Subdivision ...	5 0	13 4 0	2 12 19'20	
	Ballan Subdivision ... ..	...	...	...
	Totals	833 15	2,156 19 6	2 11 17'78	
BEECHWORTH	Beechworth Division	65 17	114 0 5	1 14 15'05	
	Yackandandah Division	231 0	333 0 0	1 8 19'94	
	Indigo Division ... ..	...	...	...
	Buckland Division	162 0	176 2 0	1 1 17'77	
	Alexandra Subdivision ... ..	...	...	...
	Dry Creek Subdivision ... ..	...	...	...
	Benalla Subdivision ... ..	...	...	...
	Gaffney's Creek Subdivision ...	8 0	11 8 0	1 8 12	
	Wood's Point Subdivision ...	21 8	34 19 6	1 12 16'20	
	Big River Subdivision ... ..	...	...	...
	Mitta-mitta Division ... ..	...	...	...
	Jamieson Subdivision	10 0	30 0 0	3 0 0	
	Totals	498 5	699 9 11	1 8 1'85	
SANDHURST	Sandhurst Division	3,621 0	13,617 11 16	3 15 5'14	
	Kilmore Division ... ..	...	...	...
	Heathcote Division and Waranga South Subdivision ... ..	...	...	...
	Waranga North Subdivision ...	...	...	...
	Totals	3,621 0	13,617 11 16	3 15 5'14	
MARYBOROUGH	Maryborough Division	580 0	49 0 12	0 1 16'57	
	Majorca Subdivision ... ..	...	...	...
	Amherst Division ... ..	...	...	...
	Avoca Subdivision ... ..	...	...	...
	Dunolly and Tarnagulla Divisions...	...	...	...
	Korong Division ... ..	...	...	...
	Redbank and St. Arnaud South Subdivisions	20 0	26 1 0	1 6 1'20	
	St. Arnaud North Subdivision ...	289 0	269 3 20	0 18 15'10	
	Totals	889 0	344 5 8	0 7 17'88	
CASTLEMAINE	Castlemaine Division	295 0	712 5 12	2 8 6'95	
	Fryer's Creek Division ... ..	...	...	...
	Hepburn Division	103 0	280 10 0	2 14 11'18	
	Taradale and Kyneton Subdivision	...	...	...
	Tarrangower Division ... ..	...	...	...
	St. Andrew's Division ... ..	...	...	...
	Blue Mountain North Subdivision	...	...	...
	Totals	398 0	992 15 12	2 9 21'31	
ARARAT	Ararat Division ... ..	...	...	...
	Pleasant Creek Division	0 10	9 14 18	19 9 12	
	Barkly Division ... ..	...	...	...
	Raglan Division ... ..	...	...	...
	Totals	0 10	9 14 18	19 9 12	
GIPPSLAND	Omeo Subdivision ... ..	...	...	...
	Mitchell River and Boggy Creek Subdivisions ... ..	...	...	...
	Crooked River Division ... ..	...	...	...
	Jericho Division ... ..	...	...	...
	Donnelly's Creek Division ... ..	...	...	...
	Stringer's Creek Division ...	485 5	1,120 18 14	2 6 4'80	
	Russell's Creek Subdivision ...	...	...	...
	Bendoc Subdivision ... ..	...	...	...
	Tarwin Subdivision ... ..	...	...	...
	Traralgon Subdivision ... ..	...	...	...
	Totals	485 5	1,120 18 14	2 6 4'80	

No. 26.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of WASHDIRT Puddled and Sluiced in 1874 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.				Tons Puddled or Sluiced.	Total Produce.			Average Yield per Ton.			Remarks.
				tons cwt.	ozs.	dwt.	grs.	ozs.	dwt.	grs.	
Ballarat District	...	...	...	267,958 0	22,531	0	10	0	1	16'36	
Beechworth District	...	...	...	55,777 0	5,599	17	5	0	2	0'19	
Sandhurst District	...	...	...	33,662 0	4,639	10	3	0	2	18'15	
Maryborough District	...	...	...	61,548 5	8,987	11	12	0	2	22'09	
Castlemaine District	...	...	...	615,471 0	12,337	3	16	0	0	9'62	
Ararat District	...	...	...	2,929 2	630	15	9	0	4	7'36	
Gippsland District	...	...	...	...	...	...	...	...	...	...
Totals	...	...	...	1,037,345 7	54,725	18	7	0	1	1'32	

NOTE.—The above table does not show the total quantity of washdirt puddled or sluiced in the several localities, but only the yield of certain "washings" respecting which the Mining Surveyors and Registrars have been able to obtain information. Owing to the circumstance that many of the machine-owners are unable to give, or are precluded from giving, information, it is impossible to get complete returns from every district, and in considering the relative importance of each district as regards alluvial mining, the tables relating to machinery should be examined and compared.

NOTE.—The collection of the statistical information relating to the yield of gold from washdirt was commenced during the quarter ending 30th June 1872, from which period to 1874 inclusive, 3,351,467 tons 7 cwt. of washdirt were puddled and sluiced, and yielded 214,767 ozs. 10 dwts. 12 grs. of gold, being an average of 1dwt. 6'76 grs. per ton.

No. 27.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of WASHDIRT Puddled and Sluiced in 1874 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.		Mining Surveyors and Registrars' Divisions and Subdivisions.			Tons Puddled or Sluiced.	Total Produce.			Average Yield per Ton.			Remarks.
					tons.	ozs.	dwt.	grs.	ozs.	dwt.	grs.	
BALLARAT	...	Central Division	...	...	142,349	11,628	2	21	0	1	15'21	
		Southern Division	...	...	4,313	446	18	0	0	2	1'73	
		Buninyong Division	...	...	6,370	550	16	13	0	1	17'50	
		Smythesdale Division	...	...	...	...	...	...	...	...	...
		Creswick Division	...	...	78,016	9,060	17	0	0	2	7'74	
		Gordon Subdivision	...	...	...	...	...	...	...	...	...
		Steiglitz Subdivision	...	...	...	...	...	...	...	...	...
		Blackwood Division and Blue Mountain South Subdivision	...	...	36,910	844	6	0	0	0	10'97	
		Ballan Subdivision	...	...	...	...	...	...	...	...	...
		Totals	...	...	267,958	22,531	0	10	0	1	16'36	
BEECHWORTH	...	Beechworth Division	...	...	...	...	...	...	...	...	...
		Yackandandah Division	...	...	...	...	...	...	...	...	...
		Indigo Division	...	...	34,550	3,918	0	0	0	2	6'43	
		Buckland Division	...	...	...	...	...	...	...	...	...
		Alexandra Subdivision	...	...	21,227	1,681	17	5	0	1	14'03	
		Dry Creek Subdivision	...	...	...	...	...	...	...	...	...
		Benalla Subdivision	...	...	...	...	...	...	...	...	...
		Gaffney's Creek Subdivision	...	...	...	...	...	...	...	...	...
		Wood's Point Subdivision	...	...	...	...	...	...	...	...	...
		Big River Subdivision	...	...	...	...	...	...	...	...	...
		Mitta-mitta Division	...	...	...	...	...	...	...	...	...
		Jamieson Subdivision	...	...	...	...	...	...	...	...	...
		Totals	...	...	55,777	5,599	17	5	0	2	0'19	
SANDHURST	...	Sandhurst Division	...	...	33,662	4,639	10	3	0	2	18'15	
		Kilmore Division	...	...	...	...	...	...	...	...	...
		Heathcote Division and Waranga South Subdivision	...	...	...	...	...	...	...	...	...
		Waranga North Subdivision	...	...	...	...	...	...	...	...	...
		Totals	...	...	33,662	4,639	10	3	0	2	18'15	

No. 27.—TABLE showing the Average Yield of Gold from certain parcels of Washdirt—*continued*.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Tons Puddled or Sluiced.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
MARYBOROUGH	Maryborough Division ...	26,766 0	5,107 3 0	0 3 19 58	
	Majorca Division ...	...	...	...
	Amherst Division ...	34,217 5	3,767 8 12	0 2 4 84	
	Avoca Subdivision ...	...	...	...
	Dunolly and Tarnagulla Divisions ...	565 0	113 0 0	0 4 0	
	Korong Division ...	...	...	...
	Redbank and St. Arnaud South Subdivisions ...	...	...	...
	St. Arnaud North Subdivision ...	...	...	...
	Totals ...	61,548 5	8,987 11 12	0 2 22 09	
CASTLEMAINE	Castlemaine Division ...	8,000 0	88 15 3	0 0 5 32	
	Fryer's Creek Division ...	218,661 0	4,157 3 0	0 0 9 12	
	Hepburn Division ...	358,908 0	6,968 0 12	0 0 9 31	
	Taradale and Kyneton Subdivision ...	4,000 0	300 0 0	0 1 12	
	Tarrangower Division ...	25,082 0	613 5 13	0 0 11 73	
	St. Andrew's Division ...	820 0	209 19 12	0 5 2 91	
	Blue Mountain North Subdivision ...	...	...	...
	Totals ...	615,471 0	12,337 3 16	0 0 9 62	
ARARAT	Ararat Division ...	...	...	...
	Pleasant Creek Division ...	...	...	...
	Barkly Division ...	50 0	5 16 22	0 2 8 12	
	Raglan Division ...	2,879 2	624 18 11	0 4 8 18	
	Totals ...	2,929 2	630 15 9	0 4 7 36	
GIPPSLAND	Omeo Subdivision ...	Nil	Nil	Nil	
	Mitchell River and Boggy Creek Subdivisions ...				
	Crooked River Division ...				
	Jericho Division ...				
	Donnelly's Creek Division ...				
	Stringer's Creek Division ...				
	Russell's Creek Subdivision ...				
	Bendoc Subdivision ...				
	Tarwin Subdivision ...				
	Traralgon Subdivision ...	Nil	Nil	Nil	
	Totals ...	Nil	Nil	Nil	

No. 28.

SUMMARY.

AVERAGE YIELD of GOLD from certain parcels of CEMENT Crushed in 1874 in the several MINING DISTRICTS, from Returns made by the Mining Surveyors and Registrars.

Mining Districts.	Quantity Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
	tons.	ozs. dwts. grs.	ozs. dwts. grs.	
Ballarat District ...	445	97 5 0	0 4 8 89	
Beechworth District ...	...	...	...
Sandhurst District ...	...	...	...
Maryborough District ...	8,624	1,532 8 14	0 3 13 29	
Castlemaine District ...	9,777	1,283 4 22	0 2 15	
Ararat District ...	16,164	5,876 10 20	0 7 6 50	
Gippsland District ...	...	...	...
Totals ...	35,010	8,789 9 8	0 5 0 50	

NOTE.—The collection of the statistical information in the above table in a separate form was commenced during the quarter ending 30th June 1872. In previous years it has been included with quartz tallings, mullock, &c., crushed. (See tables Nos. 22 and 23.) From 1872 to 1874, inclusive, 180,361 tons of cement were crushed, and yielded 36,536 ozs. 14 dwts. 1 gr. of gold, being an average of 4 dwts. 1·23 grs. per ton.

No. 29.

TABLE showing the AVERAGE YIELD of GOLD from certain parcels of CEMENT Crushed in 1874 in the several DIVISIONS and SUBDIVISIONS of each Mining District, from Returns made by the Mining Surveyors and Registrars.

Mining Districts	Mining Surveyors and Registrars' Divisions and Subdivisions	Quantity Crushed.	Total Produce.	Average Yield per Ton.	Remarks.
		tons.	ozs. dwts. grs.	ozs. dwts. grs.	
BALLARAT	Central Division ... ..	...	...	...
	Southern Division	325	91 5 0	0 5 1476	
	Buninyong Division ... ..	...	...	...
	Smythesdale Division ... ..	...	...	...
	Creswick Division ... ..	...	...	...
	Gordon Subdivision ... ..	...	...	...
	Steiglitz Subdivision ... ..	...	...	...
	Blackwood Division and Blue Mountain South Subdivision ...	120	6 0 0	0 1 0	
	Ballan Subdivision ... ..	...	...	...
	Totals	445	97 5 0	0 4 8'89	
BEECHWORTH	Beechworth Division	Nil	Nil	Nil	
	Yackandandah Division				
	Indigo Division				
	Buckland Division				
	Alexandra Subdivision				
	Dry Creek Subdivision				
	Benalla Subdivision				
	Gaffney's Creek Subdivision ...				
	Wood's Point Subdivision				
	Big River Subdivision				
SANDHURST	Mitta-mitta Division	Nil	Nil	Nil	
	Jamieson Subdivision				
	Totals				
	Sandhurst Division	Nil	Nil	Nil	
	Kilmore Division				
	Heathcote Division and Waranga South Subdivision				
	Waranga North Subdivision ...				
	Totals	Nil	Nil	Nil	
	Maryborough Division	8,493	1,505 0 12	0 3 13'05	
	Majoreca Subdivision				
	Amberst Division				
	Avoca Subdivision				
	Dunolly and Tarnagulla Divisions ...				
	Korong Division				
	Redbank and St. Arnaud South Subdivisions				
	St. Arnaud North Subdivision ...				
	Totals	8,624	1,532 8 14	0 3 13'29	
CASTLEMAINE	Castlemaine Division ... ..	...	...	...
	Fryer's Creek Division	7,560	933 5 0	0 2 11'25	
	Hepburn Division	2,217	349 19 22	0 3 3'77	
	Paradale and Kyneton Subdivision ...	...	...	...
	Tarrangower Division ... ..	...	...	...
	St. Andrew's Division ... ..	...	...	...
	Blue Mountain North Subdivision ...	...	...	...
	Totals	9,777	1,283 4 22	0 2 15	
ARARAT	Ararat Division	4,250	825 5 8	0 3 21'20	
	Pleasant Creek Division	11,914	5,051 5 12	0 8 11'50	
	Barkly Division ... ..	...	...	...
	Raglan Division ... ..	...	...	...
	Totals	16,164	5,876 10 20	0 7 6'50	
GIPPSLAND	Omeo Subdivision	Nil	Nil	Nil	
	Mitchell River and Boggy Creek Subdivisions				
	Crooked River Division				
	Jericho Division				
	Donnelly's Creek Division				
	Stringer's Creek Division				
	Russell's Creek Subdivision				
	Bendoc Subdivision				
	Tarwin Subdivision				
	Traralgon Subdivision				
	Totals	Nil	Nil	Nil	

No. 30.**SUMMARY.**

PRICES charged per Ton for CRUSHING QUARTZ and CEMENT in the several MINING DISTRICTS during the Quarter ended 31st December 1874.

Mining Districts.					From			To		
					£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	0	2	6	0	15	0
Beechworth District	...	...	...	...	0	4	6	1	8	0
Sandhurst District	...	...	...	...	0	6	0	0	10	0
Maryborough District	...	...	...	...	0	6	0	0	10	0
Castlemaine District	...	...	...	...	0	2	0	0	15	0
Ararat District	...	...	...	...	0	5	0	0	9	0
Gippsland District	...	...	...	...	0	7	6	1	5	0
Lowest and Highest Prices					0	2	0	1	8	0

No. 31.**SUMMARY.**

PRICE of GOLD per Ounce in the several MINING DISTRICTS during the Quarter ended 31st December 1874.

Mining Districts.					From			To		
					£	s.	d.	£	s.	d.
Ballarat District	...	...	...	...	3	17	0	4	3	0
Beechworth District	...	...	...	...	3	0	0	4	2	0
Sandhurst District	...	...	...	...	3	15	0	4	2	2
Maryborough District	...	...	...	...	3	0	0	4	2	6
Castlemaine District	...	...	...	...	3	16	0	4	1	6
Ararat District	...	...	...	...	3	14	0	4	2	6
Gippsland District	...	...	...	...	3	0	0	4	0	0
Lowest and Highest Prices					3	0	0	4	3	0

No. 32.

QUANTITY of GOLD EXPORTED during the Year 1874, as returned by the Customs Department.

ozs.
904,154

NOTE.—In addition to the above, 107,998 ozs. 16 dwts. New Zealand gold have been shipped from this colony during the year.

No. 33.

RETURN showing approximately the GOLD obtained from QUARTZ VEINS and ALLUVIAL WORKINGS during the Year 1874.

							ozs.	dwts.
From Quartz Veins	...	...	...	...	...	...	699,663	19
From Alluvial Workings	...	...	...	...	...	...	456,308	0
Total Gold Exported and Minted							1,155,971	19

NOTE.—The above results are but rough approximations. The Mining Surveyors and Registrars can furnish only estimates based on information afforded by the banks and gold-buyers, and on their own knowledge of the character of the workings in their districts. The check on the returns—and not a sufficient one—is that afforded by the returns of quartz and quartz tailings crushed, pyrites operated on, and washdirt and cement treated, which, however, cannot and do not comprise information respecting all the stuff put through the mills.

No. 34.

STATEMENT of VICTORIAN GOLD received at the Melbourne Branch of the ROYAL MINT during the Year 1874, as returned by the Deputy-Master of the Mint.

Gross Weight of Rough Gold.	Gross Weight of Gold Bullion.
ozs. 29,391'54	ozs. 222,426'41

NOTE.—The Mint has no evidence beyond the statement of the depositors that the above is Victorian gold. Gold was first received at the Mint on the 30th April 1872.

No. 35.

RETURN of the Number of GOLD-MINING LEASES in force on the 31st December 1874, and the Extent of GROUND LEASED.

Mining Districts.	Number of Leases.	Extent.		
		A.	B.	P.
Ballarat District	123	4,316	1	30
Beechworth District	182	2,980	2	38½
Sandhurst District... ..	850	6,290	2	30½
Maryborough District	291	5,354	0	2
Castlemaine District	308	3,454	0	28½
Ararat District	132	2,362	0	30
Gippsland District... ..	110	1,843	0	34
Totals	1,996	26,601	1	33½

NOTE.—The total number of Gold-Mining Leases granted since the commencement is 9,524, for an area of 175,868a. 2r. 20½p. The above table shows those only which were actually in force on the 31st December 1874.

No. 36.

RETURN of the Number of GOLD-MINING LEASES Issued in the Year 1874, and the Extent of GROUND LEASED.

Mining Districts.	Number of Leases.	Extent.		
		A.	B.	P.
Ballarat District	68	1,619	2	25
Beechworth District	59	1,060	2	12½
Sandhurst District	146	1,459	1	15
Maryborough District	72	1,555	2	17
Castlemaine District	120	1,345	3	11
Ararat District	95	2,633	3	32
Gippsland District... ..	17	280	0	24
Totals	577	9,955	0	16½

No. 37.

SUMMARY.

AREA of LAND held as CLAIMS under the District Bye-laws, and the portion of the same protected by Registration or by Exemption Certificates, in the several MINING DISTRICTS, on the 31st December 1874.

Mining Districts.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of Ground not being worked, being protected by Certificates.		
	A.	B.	P.	A.	B.	P.
Ballarat District	30,837	1	6	2,458	2	36
Beechworth District	9,831	0	0	861	3	0
Sandhurst District... ..	1,690	2	0	58	0	28
Maryborough District	3,576	2	0	137	3	1
Castlemaine District	3,888	3	11	197	0	11
Ararat District	1,129	0	0	39	0	0
Gippsland District... ..	2,576	3	20	106	2	0
Totals	53,529	3	37	3,858	3	36

NOTE.—The areas given in the second column are included in the first.

No. 38.

TABLE showing the AREA of LAND held as CLAIMS under the District Bye-laws, and the portion of the same not being worked, being protected by Registration or by Exemption Certificates, in the several DIVISIONS and SUBDIVISIONS, on the 31st December 1874.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Total Area of Land held as Claims under the Bye-laws.			Aggregate Area of ground not being worked, being protected by Certificates.		
		A.	R.	P.	A.	R.	P.
BALLABAT ...	Central Division ...	16,104	3	17	2,031	1	16
	Southern Division ...	1,700	0	0	67	3	10
	Buninyong Division ...	1,759	1	1	19	0	34
	Smythesdale Division ...	7,395	2	34	80	0	36
	Creswick Division ...	1,690	3	0	110	1	34
	Gordon Subdivision ...	81	1	16	68	3	14
	Steiglitz Subdivision ...	1,490	3	8	24	1	5
	Blackwood Division and Blue Mountain South Subdivision ...	614	2	10	56	2	7
	Ballan Subdivision ...	Nil			Nil		
	Totals ...	30,837	1	6	2,453	2	36
BEECHWORTH ...	Beechworth Division ...	5,400	0	0	96	0	0
	Yackandandah Division ...	840	0	0	32	0	0
	Indigo Division ...	1,700	0	0	650	0	0
	Buckland Division ...	802	0	0	67	2	0
	Alexandra Subdivision ...	180	0	0	Nil		
	Dry Creek Subdivision ...	230	0	0	Nil		
	Benalla Subdivision ...	Nil			Nil		
	Gaffney's Creek Subdivision ...	64	0	0	1	2	0
	Wood's Point Subdivision ...	105	0	0	3	3	0
	Big River Subdivision ...	60	0	0	2	0	0
	Mitta-mitta Division ...	200	0	0	Nil		
	Jamieson Subdivision ...	250	0	0	9	0	0
	Totals ...	9,831	0	0	861	3	0
SANDHURST ...	Sandhurst Division ...	1,320	0	0	37	2	0
	Kilmore Division ...	50	0	0	Nil		
	Heathcote Division and Waranga South Subdivision ...	320	2	0	20	2	28
	Waranga North Subdivision ...	...			...
	Totals ...	1,690	2	0	58	0	28
MARYBOROUGH ...	Maryborough Division ...	2,402	0	0	39	0	0
	Majorca Subdivision ...	21	0	0	Nil		
	Amherst Division ...	200	0	0	81	0	0
	Avoca Subdivision ...	380	0	0	5	2	1
	Dunolly and Tarnagulla Divisions ...	201	0	0	Nil		
	Korong Division ...	250	0	0	5	0	0
	Redbank and St. Arnaud South Subdivisions ...	78	0	0	Nil		
	St. Arnaud North Subdivision ...	44	2	0	7	1	0
	Totals ...	3,576	2	0	137	3	1
CASTLEMAINE ...	Castlemaine Division ...	213	3	8	10	3	30
	Fryer's Creek Division ...	500	0	0	3	0	0
	Hepburn Division ...	2,750	0	0	59	3	28
	Taradale and Kyneton Subdivision ...	169	3	18	25	0	0
	Tarrangower Division ...	83	2	3	25	3	13
	St. Andrew's Division ...	91	1	20	10	1	20
	Blue Mountain North Subdivision ...	80	1	2	62	0	0
	Totals ...	3,888	3	11	197	0	11
ARARAT ...	Ararat Division ...	209	0	0	12	2	0
	Pleasant Creek Division ...	600	0	0	25	0	0
	Barkly Division ...	240	0	0	Nil		
	Raglan Division ...	80	0	0	1	2	0
	Totals ...	1,129	0	0	39	0	0
GIPPSLAND ...	Omeo Subdivision ...	810	1	20	Nil		
	Mitchell River and Boggy Creek Subdivisions ...	200	0	0	Nil		
	Crooked River Division ...	664	0	0	56	0	0
	Jericho Division ...	250	0	0	Nil		
	Donnelly's Creek Division ...	429	0	0	12	0	0
	Stringer's Creek Division ...	26	0	0	Nil		
	Russell's Creek Subdivision ...	65	2	0	5	2	0
	Bendoc Subdivision ...	94	0	0	30	0	0
	Tarwin Subdivision ...	38	0	0	3	0	0
	Traralgon Subdivision ...	Nil			Nil		
	Totals ...	2,576	3	20	106	2	0

No. 39.**SUMMARY.**

ESTIMATED VALUE of CLAIMS and LEASED LANDS in the several MINING DISTRICTS on the 31st December 1874.

Mining Districts.							Estimated Value.		
							£	s.	d.
Ballarat District ...	...	...	...	...	...	...	623,874	0	0
Beechworth District ...	...	...	...	...	...	...	295,300	0	0
Sandhurst District ...	...	...	...	...	...	...	3,258,070	0	0
Maryborough District ...	...	...	...	...	...	...	360,650	0	0
Castlemaine District ...	...	...	...	...	...	...	629,792	0	0
Ararat District ...	...	...	...	...	...	...	1,795,635	0	0
Gippsland District ...	...	...	...	...	...	...	460,703	0	0
Total ...	...	...	...	...	...	...	7,424,024	0	0

No. 40.

ESTIMATED VALUE of MINING CLAIMS and LEASED LANDS in the several DIVISIONS and SUBDIVISIONS of each Mining District on the 31st December 1874.

Mining Districts.		Mining Surveyors and Registrars' Divisions and Subdivisions.							Estimated Value.		
									£	s.	d.
BALLARAT	Central Division ...	...	...	...	...	...	184,924	0	0
			Southern Division ...	...	...	...	...	...	23,000	0	0
			Buninyong Division ...	...	...	...	...	...	8,000	0	0
			Smythesdale Division ...	...	...	...	...	...	43,000	0	0
			Creswick Division ...	...	...	...	...	...	208,000	0	0
			Gordon Subdivision ...	...	...	...	...	...	62,950	0	0
			Steiglitz Subdivision ...	...	...	...	...	...	30,000	0	0
			Blackwood Division and Blue Mountain South Subdivision ...	...	...	...	...	...	63,000	0	0
			Ballan Subdivision ...	...	...	...	...	...	1,000	0	0
			Total ...	...	...	...	...	...	623,874	0	0
BEECHWORTH	Beechworth Division ...	...	...	...	...	...	103,800	0	0
			Yackandandah Division ...	...	...	...	...	...	20,000	0	0
			Indigo Division ...	...	...	...	...	...	18,000	0	0
			Buckland Division ...	...	...	...	...	...	41,000	0	0
			Alexandra Subdivision ...	...	...	...	...	...	24,000	0	0
			Dry Creek Subdivision ...	...	...	...	...	...	6,000	0	0
			Benalla Subdivision ...	...	...	...	...	...	9,700	0	0
			Gaffney's Creek Subdivision ...	...	...	...	...	...	11,800	0	0
			Wood's Point Subdivision ...	...	...	...	...	...	5,000	0	0
			Big River Subdivision ...	...	...	...	...	...	6,000	0	0
			Mitta-mitta Division ...	...	...	...	...	...	50,000	0	0
			Jamieson Subdivision ...	...	...	...	...	...	295,300	0	0
SANDHURST	Sandhurst Division ...	...	...	...	...	...	3,200,000	0	0
			Kilmore Division ...	...	...	...	...	...	15,000	0	0
			Heathcote Division and Waranga South Subdivision ...	...	...	...	...	...	23,070	0	0
			Waranga North Subdivision ...	...	...	...	...	...	20,000	0	0
			Total ...	...	...	...	...	...	3,258,070	0	0
MARYBOROUGH	Maryborough Division ...	...	...	...	...	...	170,000	0	0
			Majorca Subdivision ...	...	...	...	...	...	10,000	0	0
			Amherst Division ...	...	...	...	...	...	13,150	0	0
			Avoca Subdivision ...	...	...	...	...	...	26,700	0	0
			Dunolly and Tarnagulla Divisions ...	...	...	...	...	...	81,000	0	0
			Korong Division ...	...	...	...	...	...	20,000	0	0
			Redbank and St. Arnaud South Subdivision ...	...	...	...	...	...	7,300	0	0
			St. Arnaud North Subdivision ...	...	...	...	...	...	32,500	0	0
			Total ...	...	...	...	...	...	360,650	0	0
CASTLEMAINE	Castlemaine Division ...	...	...	...	...	...	41,680	0	0
			Fryer's Creek Division ...	...	...	...	...	...	95,000	0	0
			Hepburn Division ...	...	...	...	...	...	211,675	0	0
			Taradale and Kyneton Subdivision ...	...	...	...	...	...	123,260	0	0
			Tarrangower Division ...	...	...	...	...	...	136,667	0	0
			St. Andrew's Division ...	...	...	...	...	...	16,510	0	0
			Blue Mountain North Subdivision ...	...	...	...	...	...	5,000	0	0
			Total ...	...	...	...	...	...	629,792	0	0

No. 40.—Estimated Value of Mining Claims, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.							Estimated Value.		
								£	s.	d.
ARARAT	{	Ararat Division ... ..	...	...	...	...	...	53,250	0	0
		Pleasant Creek Division ... ..	...	...	...	...	...	1,711,294	0	0
		Barkly Division ... ..	...	...	...	...	...	1,300	0	0
		Raglan Division ... ..	...	...	...	...	...	24,191	0	0
		Total ... ..	...	...	...	...	...	1,795,635	0	0
GIPPSLAND	{	Omeo Subdivision ... ..	...	...	...	...	...	10,250	0	0
		Mitchell River and Boggy Creek Subdivisions ... ..	...	...	...	...	...	20,500	0	0
		Crooked River Division ... ..	...	...	...	...	...	6,505	0	0
		Jericho Division ... ..	...	...	...	...	...	8,000	0	0
		Donnelly's Creek Division ... ..	...	...	...	...	...	20,500	0	0
		Stringer's Creek Division ... ..	...	...	...	...	...	372,100	0	0
		Russell's Creek Subdivision ... ..	...	...	...	...	...	2,250	0	0
		Bendoc Subdivision ... ..	...	...	...	...	...	6,000	0	0
		Tarwin Subdivision ... ..	...	...	...	...	...	3,753	0	0
		Traralgon Subdivision ... ..	...	...	...	...	...	180	0	0
		Total ... ..	...	...	...	...	...	460,703	0	0

No. 41.

SUMMARY.

LENGTH of WATER RACES and their APPROXIMATE COST, in the several MINING DISTRICTS, on the 31st December 1874.

Mining Districts.	Length of Races.							Approximate Cost.		
								£	s.	d.
Ballarat District	miles chains. 340 51	31,102	0	0
Beechworth District	1,073 20	155,513	0	0
Sandhurst District	38 0	2,750	0	0
Maryborough District	174 7	4,467	0	0
Castlemaine District	217 24	17,465	0	0
Ararat District	109 0	8,480	0	0
Gippsland District	150 39	13,779	0	0
Totals	2,192 61	263,886	0	0

No. 42.

TABLE showing the LENGTH OF WATER RACES and their APPROXIMATE COST, in the several DIVISIONS and SUBDIVISIONS of each MINING DISTRICT, on the 31st December 1874.

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.							Length of Races.			Approximate Cost.			Remarks.
								miles chains.			£	s.	d.	
BALLARAT	{	Central Division	54 0	1,404	0	0	Nearly all the races in this division are out of use. About 6½ miles of abandoned races.
		Southern Division ... ..	...	...	...	...	...	5 25	...	...	233	0	0
		Buninyong Division ... ..	...	...	...	...	...	2 0	...	...	60	0	0
		Smythesdale Division ... ..	...	...	...	...	...	32 60	...	...	442	0	0
		Creswick Division	114 46	13,507	0	0	1 mile 63 chains of water-races have been cut.
		Gordon Subdivision ... ..	...	...	...	...	...	6 0	...	...	156	0	0
		Steiglitz Subdivision ... ..	...	...	...	...	...	76 0	...	...	10,000	0	0
		Blackwood Division and Blue Mountain South Subdivision ... ..	...	...	...	...	...	50 0	...	...	5,000	0	0
		Ballan Subdivision ... ..	...	...	...	...	...	Nil	...	...	Nil	...	...
		Totals ... ..	...	...	...	...	...	340 51	...	...	31,102	0	0
BEECHWORTH	{	Beechworth Division	464 0	131,600	0	0	Including about 100 miles of abandoned races.
		Yackandandah Division ... ..	...	...	...	...	...	250 0	...	...	15,000	0	0
		Indigo Division ... ..	...	...	...	...	...	Nil	...	...	Nil	...	...
		Buckland Division ... ..	...	...	...	...	...	166 60	...	...	12,763	0	0
		Alexandra Subdivision	13 40	945	0	0	This return includes a large number of races now abandoned, but less so than for the year 1873. Most of the races were constructed when wages were very high.
		Dry Creek Subdivision ... ..	...	...	...	...	...	10 0	...	...	500	0	0
		Benalla Subdivision ... ..	...	...	...	...	...	Nil	...	...	Nil	...	...
		Gaffney's Creek Subdivision ... ..	...	...	...	...	...	33 0	...	...	6,600	0	0
		Wood's Point Subdivision ... ..	...	...	...	...	...	27 0	...	...	6,150	0	0
		Big River Subdivision ... ..	...	...	...	...	...	26 0	...	...	4,950	0	0
		Mitta-mitta Division ... ..	...	...	...	...	...	60 0	...	...	4,000	0	0
		Jamieson Subdivision ... ..	...	...	...	...	...	23 0	...	...	3,300	0	0
		Totals ... ..	...	...	...	...	...	1,073 20	...	...	155,513	0	0

No. 42.—TABLE showing the Length of Water Races, &c.—*continued.*

Mining Districts.	Mining Surveyors and Registrars' Divisions and Subdivisions.	Length of Races.	Approximate Cost.	Remarks.
SANDHURST	Sandhurst Division	miles chains. 38 0	£ s. d. 2,780 0 0	{ There are in addition about 90 miles of races not in use.
	Kilmore Division	Nil	Nil	
	Heathcote Division and Waranga South Subdivision	Nil	Nil	
	Waranga North Subdivision	Nil	Nil	
	Totals	38 0	2,780 0 0	
MARYBOROUGH	Maryborough Division	Nil	Nil	
	Majorca Subdivision	Nil	Nil	
	Amherst Division	146 0	3,830 0 0	
	Avoca Subdivision	22 52	615 0 0	
	Dunolly and Tarnagulla Divisions	5 35	22 0 0	
	Korong Division	Nil	Nil	
	Redbank and St. Arnaud South Subdivisions	Nil	Nil	
	St. Arnaud North Subdivision	Nil	Nil	
	Totals	174 7	4,467 0 0	
CASTLEMAINE	Castlemaine Division	Nil	Nil	
	Fryer's Creek Division	32 60	6,580 0 0	
	Hepburn Division	160 0	8,000 0 0	
	Taradale and Kyneton Subdivisions	4 20	37 0 0	
	Tarrangower Division	0 52	53 0 0	
	St. Andrew's Division	16 20	2,675 0 0	
	Blue Mountain North Subdivision	3 32	120 0 0	
	Totals	217 24	17,465 0 0	
ARARAT	Ararat Division	17 0	520 0 0	
	Pleasant Creek Division	32 0	2,000 0 0	
	Barkly Division	5 0	1,500 0 0	
	Raglan Division	55 0	4,460 0 0	
	Totals	109 0	8,480 0 0	
GIPPSLAND	Omeo Subdivision	65 0	8,805 0 0	{ Nearly all the races have been abandoned.
	Mitchell River and Boggy Creek Subdivisions	6 0	300 0 0	
	Crooked River Division	34 0	680 0 0	
	Jericho Division	25 0	1,000 0 0	
	Donnelly's Creek Division	12 30	1,400 0 0	
	Stringer's Creek Division	2 23	775 0 0	
	Russell's Creek Subdivision	3 10	210 0 0	
	Bendoc Subdivision	1 40	105 0 0	
	Tarwin Subdivision	1 16	504 0 0	
	Traralgon Subdivision ... ..	...	...
	Totals	150 39	13,779 0 0	

No. 43.

RETURN of the NUMBER of WATER-RIGHT LICENSES in force on the 31st December 1874.

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
169	1,316 2 34	394 43 $\frac{5}{100}$	193,188,855	91 0 26	201,364,770	966 0 0

No. 44.

THE NUMBER of WATER-RIGHT LICENSES for Gold-Mining purposes issued during the Year 1874 is as follows :—

Number.	Area of Races.	Length of Races.	Maximum Quantity of Water to be diverted per diem.	Area of Reservoirs.	Capacity of Reservoirs.	Annual Rent.
	A. R. P.	miles chains.	gallons.	A. R. P.	gallons.	£ s. d.
11	78 0 14	23 3 $\frac{58}{100}$	48,624,000	5 2 1	4,039,820	70 0 0

No. 45.

SUMMARY.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1874 of Sums lodged with the Wardens' Clerks of the several Mining Districts as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Balances on hand on the 31st December 1873.	Total Deposits received during 1874.	Total Disbursements made during 1874.	Balances on hand on 31st December 1874.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Ballarat	534 8 11	517 17 4	854 4 9	198 1 6
Beechworth	797 9 0	672 11 2	1,145 9 7	324 10 7
Sandhurst	1,221 4 1	634 18 0	1,506 10 9	349 11 4
Maryborough	571 18 1	354 17 3	766 3 0	160 12 4
Castlemaine	661 11 11	726 15 6	1,106 14 3	281 13 2
Ararat	1,026 19 2	381 6 10	921 1 10	487 4 2
Gippsland	321 5 1	373 13 6	388 6 1½	306 12 5½
Totals	5,134 16 3	3,661 19 7	6,688 10 3½	2,108 5 6½

No. 46.

RECEIPTS, DISBURSEMENTS, and BALANCES in hand during the Year 1874 of Sums lodged with the Wardens' Clerks of the several DIVISIONS of the Mining Districts as Deposits under the Gold and Mineral Lease and Water-right License Regulations.

Mining Districts.	Divisions.	Balances on hand 31st December 1873.	Total Deposits received during 1874.	Total Disbursements made during 1874.	Balances on hand 31st December 1874.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
BALLARAT ...	Ballarat	142 12 10	123 2 0	209 8 11	56 5 11
	Buninyong ... ..	...	...	...	...
	Smythesdale	11 9 6	...	11 9 6	...
	Creswick	87 7 0	66 15 4	134 2 7	19 19 9
	Gordon	9 13 0	56 19 0	47 16 8	18 15 4
	Steiglitz	129 7 8	62 10 0	163 11 8	28 6 0
	Blackwood	153 18 11	163 11 0	275 1 11	42 8 0
	Clunes ... ..	...	45 0 0	12 13 6	32 6 6
	Totals	534 8 11	517 17 4	854 4 9	198 1 6
BEECHWORTH ...	Beechworth	112 13 6	144 0 0	184 0 11	72 12 7
	Yackandandah	192 6 2	35 0 0	184 12 0	42 14 2
	Chiltern ... ..	...	...	...	...
	Morse's Creek	91 7 5	151 4 2	183 18 0	58 13 7
	Jamieson	58 12 1	69 0 0	85 5 2	42 6 11
	Wood's Point	114 12 5	152 10 0	198 19 9	68 2 8
	Benalla ... ..	...	35 0 0	32 7 4	2 12 8
	Alexandra	179 9 9	85 17 0	227 13 9	37 8 0
	Mansfield ... ..	...	...	...	...
	Eldorado	48 7 8	...	48 7 8	...
	Totals	797 9 0	672 11 2	1,145 9 7	324 10 7
SANDHURST ...	Sandhurst	985 12 7	510 16 0	1,230 19 5	265 9 2
	Kilmore	39 3 8	...	39 3 8	...
	Heathcote	170 6 1	99 10 0	187 13 8	82 2 5
	Waranga	13 13 2	13 6 0	24 19 5	1 19 9
	Graytown ... ..	...	...	...	...
	Eaglehawk	12 8 7	11 6 0	23 14 7	...
	Totals	1,221 4 1	634 18 0	1,506 10 9	349 11 4
MARYBOROUGH ...	Maryborough	263 10 4	23 19 0	265 14 10	21 14 6
	Majorca	15 19 0	5 15 0	21 14 0	...
	Talbot	28 4 7	44 4 0	62 15 0	9 13 7
	Carisbrook ... ..	...	...	...	...
	Avoca	26 3 11	72 13 0	79 12 11	19 4 0
	Dunolly	27 8 6	65 10 0	74 11 5	18 7 1
	Tarnagulla	10 4 6	13 11 0	20 1 9	3 13 9
	Korong ... ..	...	...	...	...
	Inglewood	131 0 2	76 15 0	146 3 2	61 12 0
	St. Arnaud	69 7 1	52 10 3	95 9 11	26 7 5
	Totals	571 18 1	354 17 3	766 3 0	160 12 4

No. 46.—RECEIPTS, Disbursements, and Balances in hand during the Year 1874 of Sums lodged with the Wardens' Clerks, &c.—*continued.*

Mining Districts.	Divisions.	Balances on hand 31st December 1873.	Total Deposits received during 1874.	Total Disbursements made during 1874.	Balances on hand 31st December 1874.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
CASTLEMAINE	Castlemaine	204 10 5	230 10 0	353 13 5	81 7 0
	Fryerstown	93 16 4	73 0 0	115 14 4	51 2 0
	Daylesford	121 19 10	73 16 0	139 17 0	55 18 10
	Taradale	10 15 0	...	10 15 0	...
	Maldon	80 13 8	88 12 0	135 1 10	34 3 10
	Anderson's Creek	74 8 8	242 17 6	268 4 8	49 1 6
	Trentham ... ..	...	13 0 0	13 0 0	...
	Kyneton	75 8 0	5 0 0	70 8 0	10 0 0
	Totals	661 11 11	726 15 6	1,106 14 3	281 13 2
ARARAT	Ararat	80 17 8	98 15 0	125 2 5	54 10 3
	Beaufort	173 3 4	116 0 0	230 15 2	58 8 2
	Stawell	742 1 11	153 3 10	521 0 0	374 5 9
	Landsborough	30 16 3	13 8 0	44 4 3	...
	Totals	1,026 19 2	381 6 10	921 1 10	487 4 2
GIPPSLAND	Omeo ... ..	...	...	...	...
	Grant	1 15 0	17 0 0	16 18 5	1 16 7
	Bairnsdale	102 19 9	58 13 6	86 10 0	75 3 3
	Sale	48 0 0	...	48 0 0	...
	Stringer's Creek	56 13 0	269 0 0	156 6 6½	169 6 5½
	Corner Inlet and Foster	111 17 4	20 0 0	80 11 2	51 6 2
	Jericho ... ..	...	9 0 0	...	9 0 0
	Totals	321 5 1	373 13 6	388 6 1½	306 12 5½

No. 47.

RETURN of the QUANTITIES of GUNPOWDER Issued, &c., on the several Goldfields during the Year 1874.

Mining Districts.	Quantity in Stock at the commencement of the Year.	Quantity Issued during the Year.	Quantity in Stock at the end of the Year.
	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.	tons cwt. qrs. lbs.
Ballarat District	9 2 1 13	48 1 3 17	12 0 2 6
Beechworth District	2 6 1 20	10 8 1 6	2 7 1 13
Sandhurst District	29 8 0 13	165 12 1 3	35 1 1 24
Maryborough District	4 2 1 13	12 4 3 26	4 16 0 23
Castlemaine District	10 3 2 8	38 0 0 5	11 10 1 2
Ararat District	5 17 2 10	32 14 1 14	5 18 1 16
Gippsland District ... ..	...	1 7 1 23	1 6 0 13
Totals	61 0 1 21	308 9 1 10	73 0 1 13

No. 48.

SUMMARY.

MINING COMPANIES REGISTERED in the Office of the Registrar-General during the Year 1874.

Mining Districts.	Number of Companies.	Number of Shares.	Nominal Capital.
			£ s. d.
Ballarat District	50	271,560	426,235 0 0
Beechworth District	14	320,800	209,800 0 0
Sandhurst District	24	585,138	316,840 0 0
Maryborough District	8	117,600	83,800 0 0
Castlemaine District	21	390,000	274,160 0 0
Ararat District	13	187,504	184,678 0 0
Gippsland District	13	96,200	91,700 0 0
Totals	143	1,968,802	1,592,213 0 0

NOTE.—For information relative to companies registered and companies wound-up previous to 1st January 1874, see Tables Nos. 48 and 49, *Mineral Statistics 1873.*

Eight companies were wound-up during the year, of which the aggregate nominal number of shares was 214,000, and the aggregate nominal capital £111,000.

No. 49.

MINING COMPANIES REGISTERED in the Office of the Registrar-General during the Year 1874.

Mining Districts.	Divisions and Subdivisions.	Number of Companies.	Number of Shares.	Nominal Capital.			Remarks.
				£	s.	d.	
BALLARAT	Central Division	18	90,600	101,635	0	0	
	Southern Division ... ..	...	...	...	...	...
	Buninyong Division ... ..	...	...	...	...	...
	Smythesdale Division	1	2,000	5,000	0	0	
	Creswick Division	15	65,400	52,600	0	0	
	Gordon Subdivision	3	30,080	122,000	0	0	
	Steiglitz Subdivision	4	7,480	58,500	0	0	
	Blackwood Division and Blue Mountain South Subdivision	9	76,000	86,500	0	0	
	Ballan Subdivision ... ..	...	...	...	...	...
	Totals	50	271,560	426,235	0	0	
BEECHWORTH	Beechworth Division	1	16,000	4,000	0	0	
	Yackandandah Division ... ..	...	...	...	...	...
	Indigo Division	1	50,000	50,000	0	0	
	Buckland Division	1	24,000	30,000	0	0	
	Alexandra Subdivision	4	62,800	33,800	0	0	
	Dry Creek Subdivision ... ..	...	...	...	...	...
	Benalla Subdivision ... ..	...	...	...	...	...
	Gaffney's Creek Subdivision	2	75,000	50,000	0	0	
	Wood's Point Subdivision	3	39,000	15,000	0	0	
	Big River Subdivision ... ..	...	...	...	...	...
	Mitta-mitta Division ... ..	...	...	...	...	...
	Jamieson Subdivision	2	54,000	27,000	0	0	
	Totals	14	320,800	209,800	0	0	
SANDHURST	Sandhurst Division	22	551,138	287,840	0	0	
	Kilmore Division	1	10,000	5,000	0	0	
	Heathcote Division and Waranga South Subdivision	1	24,000	24,000	0	0	
	Waranga North Subdivision ... ..	...	...	...	...	...
	Totals	24	585,138	316,840	0	0	
MARYBOROUGH	Maryborough Division	4	52,600	35,800	0	0	
	Majorca Subdivision	1	3,000	3,000	0	0	
	Amherst Division ... ..	...	...	...	...	...
	Avoca Subdivision	1	10,000	10,000	0	0	
	Dunolly and Tarnagulla Divisions ... ..	...	...	...	...	...
	Korong Division	1	24,000	12,000	0	0	
	Redbank and St. Arnaud South Subdivisions ... ..	...	...	...	...	...
	St. Arnaud North Subdivision	1	28,000	28,000	0	0	
	Totals	8	117,600	88,800	0	0	
CASTLEMAINE	Castlemaine Division	5	126,000	84,000	0	0	
	Fryer's Creek Division	5	112,000	74,000	0	0	
	Hepburn Division	4	21,400	22,400	0	0	
	Taradale and Kyneton Subdivision	2	36,600	17,160	0	0	
	Tarrangower Division	1	24,000	24,000	0	0	
	St. Andrew's Division	3	50,000	32,600	0	0	
	Blue Mountain North Subdivision	1	20,000	20,000	0	0	
	Totals	21	390,000	274,160	0	0	
ARARAT	Ararat Division	2	45,000	35,000	0	0	
	Pleasant Creek Division	6	91,804	114,128	0	0	
	Barkly Division	2	37,500	18,750	0	0	
	Raglan Division	3	13,200	16,800	0	0	
	Totals	13	187,504	184,678	0	0	
GIPPSLAND	Omeo Subdivision	1	2,400	1,200	0	0	
	Mitchell River and Boggy Creek Subdivisions ... ..	...	...	...	...	...
	Crooked River Division ... ..	...	...	...	...	...
	Jericho Division ... ..	...	...	...	...	...
	Donnelly's Creek Division	2	6,800	6,800	0	0	
	Stringer's Creek Division	6	58,000	57,200	0	0	
	Russell's Creek Subdivision	2	15,000	13,500	0	0	
	Bendoc Subdivision	1	4,000	8,000	0	0	
	Tarwin Subdivision	1	10,000	5,000	0	0	
	Traralgon Subdivision ... ..	...	...	...	...	...
	Totals	13	96,200	91,700	0	0	

No. 50.

RETURN of MINERS' RIGHTS and BUSINESS LICENSES issued in Victoria during the Year 1874.

Place or District where issued.	Miners' Rights.							Business Licenses.					Total Receipts.					
	1 Year at 5s.	2 Years at 10s.	3 Years at 15s.	4 Years at 20s.	5 Years at 25s.	7 Years at 35s.	Consolidated Miners' Rights.		Miners' Rights ante-dated. Fee 5s.	Amount received.		6 Months at 50s.	12 Months at 100s.	Transfers at 10s.	Business Licenses ante-dated. Fee 25 per cent. on License.	Amount received.	£ s. d.	£ s. d.
							Number.	Representing Single Rights at 5s.		£	s. d.							
Mining District of Ballarat ...	7,774	...	...	...	...	...	46	1,110	90	2,243 10 0	147	...	...	...	...	367 10 0	2,611 0 0
Mining District of Beechworth ...	3,611	...	...	...	...	...	8	122	..	933 5 0	83	1	...	...	...	212 10 0	1,145 15 0
Mining District of Sandhurst ...	3,196	3	...	2	...	...	22	124	4	834 10 0	55	...	...	...	...	137 10 0	972 0 0
Mining District of Maryborough ...	2,848	...	...	...	...	...	2	47	...	723 15 0	130	...	...	...	...	325 0 0	1,048 15 0
Mining District of Castlemaine ...	2,080	...	...	1	1	...	3	24	9	680 10 0	46	...	...	...	...	115 0 0	795 10 0
Mining District of Ararat ...	2,313	3	1	4	1	1	8	105	25	620 0 0	20*	..	...	...	...	50 12 6	670 12 6
Mining District of Gippsland ...	1,318	...	...	3	...	...	3	16	...	336 10 0	47	...	...	...	...	117 10 0	454 0 0
Melbourne ...	211	...	...	...	1	...	5	29	6	62 15 0	3	...	...	...	...	7 10 0	70 5 0
Totals ...	23,951	6	1	10	3	1	97	1,577	134	6,434 15 0	531*	1	...	...	...	1,333 2 6	7,767 17 6

NOTE.—The figures in this Table do not necessarily agree with those in Table No. 51.

* 1 at a premium of 12s. 6d. under *The Mining Statute 1865.*

No. 51.

STATEMENT of the REVENUE directly derived from the Goldfields during the Year 1874, compiled from the Treasury Statements of Revenue, &c.

	£	s.	d.
Amount received for Miners' Rights	6,707	15	0
Amount received for Business Licenses	1,433	12	6
Amount received for Leases of Auriferous and Mineral Lands	18,805	0	1
Amount received for Water-right and Searching Licenses	1,142	15	0
Total	£23,089	2	7

NOTE.—Moneys received from holders of and applicants for Mining Leases under the heads of fees, fines, and forfeitures, are not included in this return.

TABLE showing the WAGES paid per Week for different kinds of Labor in the several Divisions and Subdivisions of each Mining District during the Year 1874, from Returns made by the Mining Surveyors and Registrars.

Mining District.	Mining Divisions and Subdivisions	General Manager.	Legal Manager.	Mining Manager.	Engineer.	Engine-driver.	Pitman.	Blacksmith.	Carpenter.	Foreman of Shift.	Miner.	Surface Man (Laborer).	Boy.	Chinese.
BALARAT.	Central Division ..	£4	£2 to £10s.	£3 10s.	£3	£2 2s. 6d. to £5 5s.	£2 2s. 6d.	£2 5s. to £2 10s.	£2 10s. to £2 14s.	£2 8s.	£2 2s. to £2 5s.	£2	12s. to £1 5s.	£1 5s. to £1 10s.
	Bunhyong Division ..	£3 to £4 10s.	£1 10s.	£3 to £5	£3 to £5	£2 to £2 5s.	£2 5s.	£2 5s. to £2 10s.	£2 8s. to £3	£2 2s.	£2 2s. to £2 5s.	£2 2s.	£1 10s.	£1 10s. to £1 1s.
	Smythesdale Division ..	£3 5s. to £6	£4 10s.	£4 10s.	£3 10s.	£2 5s. to £2 10s.	£3	£2 7s. to £3	£2 2s. to £3	£2 2s. to £2 12s.	£2 2s. to £2 5s.	£2 2s.	£1 10s. to £1 10s.	£1 12s.
	Creswick Division ..	£2 10s. to £15 8s.	£2 to £6	£3 10s. to £5 10s.	£2 10s. to £3 18s.	£2 2s. to £2 18s. 4d.	£2 5s.	£2 5s. to £3 6s.	£2 5s. to £3	£2 8s. to £2 10s.	£2 2s. to £2 5s.	£2 2s.	£1 to £1 10s.	£1 10s. to £1 10s.
	St. Andrew's Division ..	£5	£2 to £2 10s.	£2 10s. to £4	£2 7s. 6d.	£2 5s. to £2 15s.	£2 5s.	£2 2s. to £2 10s.	£2 2s.	£2 8s. to £2 10s.	£2 2s. to £2 5s.	£2 2s.	£1 10s. to £1 15s.	£1 10s. to £1 10s.
BECHWORTH.	Blackwood Division ..	£5	£2 to £2 10s.	£3 10s.	£4	£2 5s. to £2 15s.	£2 5s.	£2 2s. to £2 10s.	£2 2s.	£2 10s. to £3	£2 2s.	£2 2s.	10s. to £1 4s.	£1 to £1 10s.
	Bullman Subdivision ..	£5	£1 to £3 10s.	£1 to £5 10s.	£4	£2 2s. to £2 5s.	£2 5s.	£2 10s. to £3	£2 10s. to £3	£2 10s.	£2 2s.	£2 2s.	10s. to £1 4s.	£1 to £1 10s.
	Beechworth Division ..	£3 10s. to £5	£1 to £2	£3 10s. to £5	£3 10s.	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s. to £1 10s.	£1 10s. to £1 10s.
	Yackandandah Division ..	£5	£2	£3 10s.	£4	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Indigo Division ..	£4 to £7	£2 2s. to £3 8s.	£4 to £7	£3 10s. to £5	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
SANDHURST.	Buckland Division ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Alexandra Subdivision ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Dry Creek Subdivision ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Benalla Subdivision ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Gaffney's Creek Subdivision ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
MARTBOROUGH.	Wood's Point Subdivision ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Big River Subdivision ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Mitta-mitta Division ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Jameson Subdivision ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Sandhurst Division ..	£5	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
CASTLEMAINE.	Kilmore Division ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Heathcote Division ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Waranga North Subdivision ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Major's Creek Subdivision ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Amherst Division ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
ARARAT.	Ararat Division ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Pleasant Creek Division ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Backley Division ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Raglan Division ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
	Omeo Subdivision ..	£3	£2 2s. to £3 8s.	£4 to £7	£3	£2 18s. to £3	£2 10s.	£2 18s.	£2 18s.	£3	£2 2s. to £2 15s.	£2 5s.	£1 10s.	£1 10s. to £1 10s.
GIPPSLAND.	Mitchell River and Boggy Creek Subdivisions ..	£6	£1 to £1 10s.	£4	£3 to £3 10s.	£2 10s. to £3	£2 10s.	£2 10s. to £3	£2 10s. to £3	£2 15s.	£2 10s. to £2 15s.	£2 10s.	£1	£1 5s. to £1 10s.
	Crooked River Division ..	£6	£1 to £1 10s.	£4	£3 to £3 10s.	£2 10s. to £3	£2 10s.	£2 10s. to £3	£2 10s. to £3	£2 15s.	£2 10s. to £2 15s.	£2 10s.	£1	£1 5s. to £1 10s.
	Jericho Division ..	£6	£1 to £1 10s.	£4	£3 to £3 10s.	£2 10s. to £3	£2 10s.	£2 10s. to £3	£2 10s. to £3	£2 15s.	£2 10s. to £2 15s.	£2 10s.	£1	£1 5s. to £1 10s.
	Donnelly's Creek Division ..	£10	£1 to £2	£4	£3 to £6	£2 10s. to £3	£2 10s.	£2 10s. to £3	£2 10s. to £3	£2 15s.	£2 10s. to £2 15s.	£2 10s.	£1	£1 5s. to £1 10s.
	Stinger's Creek Division ..	£5	£1 to £1 10s.	£4	£3 to £6	£2 10s. to £3	£2 10s.	£2 10s. to £3	£2 10s. to £3	£2 15s.	£2 10s. to £2 15s.	£2 10s.	£1	£1 5s. to £1 10s.

No. 53.

THE PRICES OF MINING MATERIALS in some of the more important MINING CENTRES are as follow :—

- BALLARAT.**—Castings : Iron puddling machines, 20s. per cwt. ; lift pumps, 16 in. to 22 in., including workings and connections, 26s. per cwt. ; winding and pumping gear, 35s. per cwt. ; water-pipe, 17s. per cwt. ; stamping batteries, with iron frames and fittings connected with 10 stamps, say 10 cwt. per stamp or hammer, according to construction or design, 40 in., iron with wood framing, £40 per head. Gas-pipe, $\frac{3}{4}$ in. to 2 in., 6d. to 1s. 9d. per foot. Iron rivets, 42s. to 65s. per cwt. Chains, tested, round, sizes $\frac{3}{8}$ in. to 1 in., imported, 35s. to 60s. per cwt. ; ditto, ditto, made at Ballarat, 70s. per cwt. Rope : Flat wire, 3 in. and 4 in. x $\frac{3}{8}$ in., 70s. per cwt. ; flat hemp, 4 $\frac{1}{2}$ in. to 6 in., 80s. per cwt. ; flat manilla, 76s. to 80s. per cwt. ; round manilla, 74s. per cwt., different sizes. Powder, glazed blasting, 8d. per lb. Fuze : Single tape, 11s. per dozen coils ; double tape, 12s. 6d. per dozen coils. Candles, sperm, 13s. per dozen lbs. Oil : Olive, 7s. per gall. ; colza, 6s. 6d. per gall. ; castor, 6s. per gall. ; kerosene, 2s. 6d. per gall. Tallow, beef and mutton, 42s. per cwt. Quicksilver, 8s. per lb. Picks : Single-ended, driving and sinking, 42s. to 60s. per dozen ; double-ended 90s. per dozen. Pick-hilts : Hickory, 15s. per dozen ; colonial, lightwood, 8s. to 12s. per dozen. Shovels : Long or D-handled, 80s. per dozen ; Cornish, socket-handled, 52s. to 56s. per dozen. Shovel-handles : English, 18s. per dozen ; colonial, 14s. per dozen. White yarn : Flax packing, 1s. 6d. per lb. ; hemp packing, 11d. per lb. Iron : Common, 21s. per cwt. ; best Low Moor, 42s. per cwt. Leather : Colonial, for pumps, 2s. per lb. ; English, 3s. 6d. per lb. ; belt leather, colonial, 2s. 3d. per lb. Gutta-percha, sheet, for pump-clacks, 5s. per lb. ; tubing, 9s. per lb. Steel : Cast, 70s. per cwt. ; blister, 56s. per cwt. ; shear, 70s. per cwt. ; spring, 42s. per cwt. ; Stubbs' No. 2, 112s. per cwt.
- CRESWICK.**—Castings : Stamp-head and beds, 19s to 20s. per cwt. ; wheels, &c., 22s. to 24s. per cwt. Hemp rope, 3 in. to 8 in., 54s. to 70s. per cwt. Blasting powder, 10d. to 1s. per lb. Fuze, 15s. per dozen coils. Candles, 11s. to 12s. per dozen lbs. Oil : Colza, 5s. 6d. to 7s. per gall. ; machine, 6s. 6d. per gall. Tallow, 37s. to 40s. per cwt. Quicksilver, 6s. 6d. to 8s. 6d. per lb. Picks, 48s. to 78s. per dozen. Pick-handles, 11s. to 16s. per dozen. Shovels, long-handled, 72s. to 88s. per dozen. Leather, English, for pumps, 2s. 6d. per lb. Cotton waste, 7 $\frac{1}{2}$ d. to 8d. per lb. Iron, common, 22s. to 23s. per cwt. Steel : Cast, 74s. per cwt. ; blister, 65s. per cwt. Sheet indiarubber, 4s. to 5s. 6d. per lb.
- BRIGHT.**—Castings, plain, 29s. per cwt. Hemp rope, 84s. per cwt. ; wire rope, 60s. per cwt. Chains, small and medium, 56s. per cwt. Blasting powder, 9d. per lb. Indiarubber double tape fuze, 15s. per dozen coils. Best sperm candles, 13s. per dozen lbs. Oil : Colza, 8s. per gall. ; Chinese, 8s. per gall. ; olive, 8s. 6d. per gall. ; kerosene, 3s. 3d. per gall. Quicksilver, 8s. per lb. Collins' double picks, 84s. per dozen. Pick-handles, 20s. per dozen. Best long-handled shovels (Ames'), 96s. per dozen ; best long-handled shovels (Sharp's), 72s. per dozen ; best long-handled shovels (Collins'), 72s. per dozen ; best short-handled shovels, 78s. per dozen. Leather : Colonial, by the hide, 1s. 6d. per lb. ; in belting, 2s. per lb. Common iron, 37s. 4d. per cwt. Steel : Octagon, 75s. per cwt. ; blistered, 70s. per cwt. [Carriage, £6 10s. to £7 per ton.]
- WOOD'S POINT.**—Castings of white metal, 42s. 6d. per cwt. ; extra size ditto, 110s. to 120s. per cwt. Powder, best glazed, 100s. per 100 lbs. Fuze, 15s. to 16s. per dozen coils. Candles, 16s. per dozen lbs. Oil : Castor, 10s. per gall. ; olive, 10s. per gall. Quicksilver (in private hands only), 7s. 3d. to 7s. 6d. per lb. Mining pick-heads, 20s. per dozen. Pick-handles, 18s. per dozen. Shovels : Long-handled, 120s. per dozen ; short-handled, 100s. per dozen. Leather, belting and grain, 1s. 6d. per lb. Vulcanized indiarubber belting, four-ply, 4s. 3d. to 4s. 6d. per foot. Iron, best wrought, 45s. per cwt. Steel : Cast, 80s. to 90s. per cwt. ; blister, 85s. per cwt. Nuts, bolts, screws, &c., 1s. per lb.
- SANDHURST.**—Stamper-boxes, 24s. per cwt. Stamper-heads, 18s. per cwt. Stamper-shoes, 20s. per cwt. Discs, cast-iron, 24s. per cwt. Cliff's patent discs, 60s. each. Belt pulleys, 30s. per cwt. Bar-iron, BBH, 22s. 6d. per cwt. Octagon steel, 56s. per cwt. Piping, £18 per ton. Water-pipe, English, £17 10s. per ton. Cams, 10d. per lb. Quicksilver, 8s. per lb. Sheet copper, 1s. 8d. per lb. Candles : Colonial, 11 $\frac{1}{2}$ d. per lb. ; sperm, 1s. 1d. per lb. ; tallow, 3 $\frac{1}{2}$ d. to 4d. per lb. Powder : Colonial, 6 $\frac{1}{2}$ d. per lb. ; Hall's, 8d. per lb. Pump leather, English, 3s. per lb. Engine-packing, 1s. 6d. per lb. Cotton waste, 7d. per lb. Bolts and nuts, 8d. per lb. Sheet indiarubber, 4s. to 6s. per lb. Copper rivets, 3s. per lb. Nails, average, 33s. per cwt., per keg. Punched gratings, 1s. per square foot. Shovels : S.H., 80s. per dozen ; L.H., 84s. per dozen. Pick-handles, 15s. per dozen ; pick-handles, colonial, 9s. per dozen. Oil : Neatsfoot, 6s. per gall. ; castor, 6s. 6d. per gall. ; kerosene, 2s. 10d. per gall. Lithofraeteur, 3s. 6d. per lb. Fuze : Double, 11s. per dozen ; single, 9s. per dozen. Leather : Belting, single, 4s. 6d. per foot ; double, 8s. per foot.
- MARYBOROUGH.**—Castings : Whim and truck wheels, 18s. per cwt. ; chains, 65s. per cwt. Rope, manilla, 74s. per cwt. Fuze, per dozen coils, 15s. per cwt. Powder, blasting, 75s. per 100 lbs. Candles, sperm, 12s. per dozen lbs. Oil : Colza, 7s. per gall. ; castor, 6s. per gall. ; olive, 8s. per gall. ; kerosene, 2s. 6d. per gall. Quicksilver, 8s. per lb. Iron, BBH, 25s. per cwt. Steel : Cast, 75s. per cwt. ; blister, 56s. per cwt. ; shear, 75s. per cwt. Leather : English, belt, 3s. 3d. to 3s. 6d. per lb. ; colonial, belt, 1s. 9d. to 2s. 3d. per lb. Tallow : Mutton, 31s. per cwt. ; beef, 30s. per cwt. Green hides, for buckets, 30s. each. Picks, for driving or sinking, single ends, 30s. to 60s. per dozen. Pick-hilts, colonial, 7s. 6d. per dozen. Shovels, American, 66s. to 72s. per dozen.
- CASTLEMAINE.**—Castings : Heavy, as stampers, &c., 21s. per cwt. ; wheels, &c., 22s. 6d. to 24s. per cwt. ; pipes, 22s. per cwt. Iron, BBH, 21s. per cwt. Steel : Cast, 61s. per cwt. ; blister, 56s. per cwt. Rope, manilla, 70s. per cwt. Tallow, refined, 51s. 3d. per cwt. Powder (Hall's), 66s. 8d. per 100 lbs. Fuze, D.T., 11s. 6d. per dozen coils. Pick-hilts, hickory, 14s. per dozen. Shovels, American, 60s. to 84s. per dozen. Oil : Colza, 6s. 6d. per gall. ; olive, 7s. per gall. ; castor, 6s. per gall. Leather : Colonial, 2s. 9d. per lb. ; English, 3s. per lb. Cotton waste, 7 $\frac{1}{2}$ d. per lb. Candles, sperm, 10s. to 12s. per dozen lbs.
- TARRANGOWER.**—Castings : Stamp-heads, 30s. per cwt. Chains, $\frac{3}{4}$ in. to $\frac{7}{8}$ in., 5 $\frac{1}{2}$ d. per lb. Rope, manilla, 8d. per lb. ; wire, 6d. per lb. Blasting powder, 8 $\frac{1}{2}$ d. to 9d. per lb. Fuze, 12s. 6d. per dozen coils. Candles : Sperm, 11d. to 1s. per lb. ; tallow, 5d. to 6d. per lb. Oil : Colza, 6s. to 6s. 6d. per gall. ; kerosene, 2s. 6d. to 3s. 6s. per gall. ; olive, 7s. per gall. Cotton waste, 8d. per lb. Picks, 1s. to 1s. 3d. per lb. Pick-handles, 15s. per dozen. Pick-handles, colonial wood, 12s. per dozen. Shovels : English, 5s. to 5s. 6d. each ; American, 6s. to 7s. each. Leather : English butts, 3s. per lb. ; colonial, 2s. 9d. per lb. Flax, 2s. 9d. per lb. Spun yarn, 8d. per lb. Iron, wrought, 22s. 6d. per cwt. Bar steel, 6d. per lb. Quicksilver, 8s. per lb.
- ARARAT.**—Iron : Castings, 3d. to 4d. per lb. ; fire-bars, 28s. per cwt. ; truck-wheels, 32s. per cwt. Manilla rope, 7 inch, 75s. to 80s. per cwt. Blasting powder, 8d. per lb. Fuze, 14s. per dozen. Candles, stearine, 1s. per lb. Colza oil, 7s. per gall. Tallow, 30s. per cwt. Pick-handles, she-oak, 8s. per dozen. Short-handled shovels, 66s. to 72s. per dozen. Leather, English butts, 3s. 6d. per lb. Bar iron, BBH, 26s. per cwt. Steel, east, 70s. per cwt. Hardwood, 3 in. x 2 in. measurement, 7s. 6d. per 100 feet. ; 6 in. x $\frac{3}{4}$ in. measurement, 7s. per 100 feet.
- PLEASANT CREEK.**—Lift pumps, 12 in. to 22 in., including working and connection, 38s. per cwt. Winding and pumping gear, 40s. per cwt. Water-pipes, 26s. per cwt. Stamping batteries and iron frames, with fitting connected to say 30 stamps of 7 cwt. 2 qrs. per stamp, £50 to £65. Gas-pipes, $\frac{3}{4}$ in. to 2 in., 6d. to 1s. 8d. per foot. Iron rivets, 50s. to 57s. per cwt. Manilla rope, round, 72s. per cwt. Blasting powder, glazed, Kame's, 7d. ; Hall's, 7 $\frac{1}{2}$ d. per lb. Dynamite, 4s. 6d. per lb. Krieb Brothers patent lithofraeteur, 4s. per lb. by the case of 53 lbs. Gun cotton, 85s. per 500 charges. Candles : Sperm, Brandon's, 11s. 3d. per dozen lbs. ; DRJ, 11s. 6d. per dozen lbs. ; colonial, 10s. 6d. per dozen lbs. Oil : Olive, bulk, 6s. per gall. ; in drum, 7s. per gall. ; colza, 6s. per gall. ; castor, 6s. 6d. per gall. ; kerosene, Devoe's, 2s. 6d. per gall. ; Downing's, 2s. 10d. per gall. Tallow, mutton, 34s. 6d. per cwt. Quicksilver, 8s. per lb. Picks : Single-ended, 48s. per dozen ; double, 78s. per dozen. Shovels, long-handled, Day's, 65s., Ames', 84s. 6d. per dozen ; D-handled shovels, Day's, 64s., Ames', 84s. per dozen. Pick-handles : Hickory, 16s. per dozen ; colonial, 9s. 6d. per dozen. Hammer-handles : Hickory, 16s. per dozen ; colonial, 9s. per dozen. Shovels : socket-handled, Cornish, 58s. per dozen. Flax packing, 1s. 3d. to 2s. 6d. per lb. Hemp packing, 10d. per lb. Bar iron, 26s. per cwt. Shafting iron, 32s. per cwt. Sheet iron, 27s. per cwt. Fuze : Bickford's single tape, 10s. per dozen coils ; double tape, 13s. per dozen coils. Steel : Cast, Johnson's, 70s. per cwt. ; octagon, S.S.S., 56s. per cwt. ; Johnson's, 67s. per cwt. ; blister steel, 50s. per cwt. ; shear steel, 60s. per cwt. ; spring steel, 50s. per cwt. Leather : English, 2s. 9d. per lb. ; colonial, 2s. per lb. Gutta-percha, sheet, 3s. 9d. per lb. Indiarubber : sheet, 3s. 3d. per lb. ; insertion, 3s. 9d. per lb. Indiarubber tubing, $\frac{1}{2}$ in., 1s. 1d. per foot ; $\frac{3}{4}$ in., 1s. 3d. per foot ; 1 in., 1s. 6d. per foot ; 1 $\frac{1}{2}$ in., 1s. 6d., 2 in., 2s., per foot.
- BENDOC.**—Oil : Castor, about 7s. 6d. per gall. ; kerosene, 3s. 6d. per gall. Candles, sperm, 14s. per dozen lbs. Stamp-heads, shoes, and bottoms, 30s. to 40s. per cwt. Shovels (Collins') : Short-handled, 70s. per dozen ; long-handled, 96s. per dozen. Picks (Collins') : Hammer-headed, 70s. per dozen ; double-ended, 78s. per dozen. Pick-handles, 12s. to 16s. per dozen. Iron, 30s. to 40s. per cwt. Steel, 60s. per cwt. Powder, blasting, 1s. per lb. Rope, manilla, 5 inch, 78s. per cwt. ; ditto, 2 $\frac{1}{2}$ inch, 78s. per cwt.

No. 54.

TABLE showing approximately the QUANTITY and COST of TIMBER consumed for Mining Purposes in the several MINING DISTRICTS during the Year 1874, from Returns made by the Mining Surveyors and Registrars.

												£	s.	d.		
BALLARAT	...	{	Firewood, &c.	282,921	tons	...			141,415	2	0		
			Props and Cap-pieces	...	...	...	1,461,104	pieces	...				
			Laths and Slabs	...	...	...	1,931,778	pieces	...				
			Sawn Timber	...	...	...	2,327,920	feet	...				
BEECHWORTH	...	{	Firewood, &c.	46,986	tons	...			25,372	14	0		
			Props and Cap-pieces	...	...	...	84,250	pieces	...				
			Laths and Slabs	...	...	...	359,600	pieces	...				
			Sawn Timber	...	...	...	360,950	feet	...				
SANDHURST	...	{	Firewood, &c.	235,815	tons	...			110,600	5	0		
			Props and Cap-pieces	...	...	...	116,450	pieces	...				
			Laths and Slabs	...	...	...	219,500	pieces	...				
			Sawn Timber	...	...	...	668,441	feet	...				
MARYBOROUGH	...	{	Firewood, &c.	92,076	tons	...			38,921	9	0		
			Props and Cap-pieces	...	...	...	339,820	pieces	...				
			Laths and Slabs	...	...	...	289,850	pieces	...				
			Sawn Timber	...	...	...	281,450	feet	...				
CASTLEMAINE	...	{	Firewood, &c.	106,307	tons	...			35,468	12	0		
			Props and Cap-pieces	...	...	...	149,314	pieces	...				
			Laths and Slabs	...	...	...	148,740	pieces	...				
			Sawn Timber	...	...	...	238,544	feet	...				
ARARAT	...	{	Firewood, &c.	211,148	tons	...			78,112	17	0		
			Props and Cap-pieces	...	...	...	75,157	pieces	...				
			Laths and Slabs	...	...	...	154,383	pieces	...				
			Sawn Timber	...	...	...	544,100	feet	...				
GIPPSLAND	...	{	Firewood, &c.	20,714	tons	...			11,840	8	0		
			Props and Cap-pieces	...	...	...	15,553	pieces	...				
			Laths and Slabs	...	...	...	18,365	pieces	...				
			Sawn Timber	...	...	...	137,104	feet	...				
Total Cost											£441,731	7	0

No. 55.

THE FOLLOWING PARTICULARS, which have been collected by the Mining Surveyors and Registrars, relate to the weight and cost of the Stamp-heads and Shanks or Lifters made use of in some of the principal Gold Mines in the several Mining Districts, and supply additional information connected with the process of crushing Quartz during the Year 1874.

In the BALLARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. to 8 cwt., and the cost is from 14s. 6d. to £10 per cwt. The height the stamp-head falls ranges from 6 to 12 inches. The number of strokes made per minute is from 60 to 82. The quantity of quartz crushed per head per diem of 24 hours varies from 18 cwt. to 3 tons 10 cwt. The number of holes per square inch in the gratings used is from 64 to 196. The horse-power required to work each stamper is from 1 to 2. The quantity of water used per stamp-head in crushing varies from 250 gallons to 600 gallons per hour. The quantity of mercury used in the ripples per stamper is from 6 to 80 lbs. The quantity of mercury lost per stamp-head per week is from 0.30 oz. to 5 ozs.

In the BEECHWORTH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. to 9 cwt., and the cost is from £1 5s. to £28 per cwt. The height the stamp-head falls ranges from 7 to 12 inches. The number of strokes made per minute is from 56 to 75. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons 5 cwt. The number of holes per square inch in the gratings used is from 90 to 160. The horse-power required to work each stamper is from 1 to 1.50. The quantity of water used per stamp-head in crushing varies from 150 gallons to 400 gallons per hour. The quantity of mercury used in the ripples per stamper is from 6 to 68 lbs. The quantity of mercury lost per stamp-head per week is from 0.75 oz. to 10 ozs.

In the SANDHURST MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. to 7 cwt., and the cost is from £1 10s. to £18 per cwt. The height the stamp-head falls ranges from 7½ to 12 inches. The number of strokes made per minute is from 64 to 75. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 10 cwt. to 2 tons 10 cwt. The number of holes per square inch in the gratings used is from 64 to 180. The horse-power required to work each stamper is from 1 to 2. The quantity of water used per stamp-head in crushing varies from 200 to 255 gallons per hour. The quantity of mercury used in the ripples per stamper is from 15 to 36 lbs. The quantity of mercury lost per stamp-head per week is 1 oz.

In the MARYBOROUGH MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 5 cwt. 2 qrs. to 8 cwt., and the cost is from £1 to £1 11s. 6d. per cwt. The height the stamp-head falls ranges from 6 to 12 inches. The number of strokes made per minute is from 36 to 85. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 3 tons. The number of holes per square inch in the gratings used is from 70 to 180. The horse-power required to work each stamper is from 0.75 to 1.50. The quantity of water used per stamp-head in crushing varies from 126 to 400 gallons per hour. The quantity of mercury used in the ripples per stamper is from 10 to 35 lbs. The quantity of mercury lost per stamp-head per week varies from 1.50 to 12 ozs.

In the CASTLEMAINE MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 4 cwt. 2 qrs. to 8 cwt. 1 qr., and the cost is from 17s. to £25 per cwt. The height the stamp-head falls ranges from 6 to 15 inches. The number of strokes made per minute is from 50 to 90. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton 2 cwt. to 3 tons 10 cwt. The number of holes per square inch in the gratings used is from 75 to 200. The horse-power required to work each stamper is from 0.75 to 2.50. The quantity of water used per stamp-head in crushing varies from 135 to 430 gallons per hour. The quantity of mercury used in the ripples per stamp-head is from 5 to 75 lbs. The quantity of mercury lost per stamp-head per week varies from 0.50 to 14 ozs.

In the ARARAT MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 6 cwt. to 7 cwt. 3 qrs. 14 lbs., and the cost is from 17s. 6d. to £8 per cwt. The height the stamp-head falls ranges from 6 to 12 inches. The number of strokes made per minute is from 30 to 70. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 2 tons. The number of holes per square inch in the gratings used is from 80 to 256. The horse-power required to work each stamper is from 0.9 to 1.30. The quantity of water used per stamp-head in crushing varies from 160 to 650 gallons per hour. The quantity of mercury used in the ripples per stamper is from 15 to 70 lbs. The quantity of mercury lost per stamp-head per week is from 1 to 9 ozs.

In the GIPPSLAND MINING DISTRICT the stamp-heads and shanks or lifters vary in weight from 3 cwt. to 8 cwt., and the cost is from £1 12s. to £30 per cwt. The height the stamp-head falls ranges from 6 to 10 inches. The number of strokes made per minute is from 40 to 84. The quantity of quartz crushed per head per diem of 24 hours varies from 1 ton to 3 tons. The number of holes per square inch in the gratings used is from 80 to 144. The horse-power required to work each stamper is from 0.80 to 1.50. The quantity of water used per stamp-head in crushing varies from 40 to 480 gallons per hour. The quantity of mercury used in the ripples per stamper is from 9 to 45 lbs. The quantity of mercury lost per stamp-head per week varies from 1 to 8 ozs.

MINERALS OTHER THAN GOLD.

No. 56.

RETURN of the NUMBER of LEASES in force on the 31st December 1874 for the purpose of Mining for
METALS AND MINERALS OTHER THAN GOLD.

Names of Metals and Minerals.						Number of Leases.	Area.		
							A.	R.	P.
Antimony	...	...	...	...	...	21	522	2	27
Coal	...	...	...	...	...	18	9,412	0	19
Copper	...	...	...	...	...	1	625	0	12
Flagging	...	...	...	...	...	1	9	2	3
Kaolin	...	...	...	...	...	1	5	2	28
Lignite	...	...	...	...	...	1	475	2	10
Silver	...	...	...	...	...	3	380	1	17
Silver and Lead	...	...	...	...	...	2	605	0	32
Silver, Lead, and Copper	...	...	...	...	...	2	858	3	36
Slate	...	...	...	...	...	3	362	0	13
Slate and Flagging	...	...	...	...	...	3	42	0	32
Slate and Freestone	...	...	...	...	...	3	333	0	37
Iron	...	...	...	...	...	1	42	2	22
Ironstone	...	...	...	...	...	1	320	1	35
Red Ochre Clay	...	...	...	...	...	2	17	0	26
Tin, and the Ores of Tin	...	...	...	...	...	12	961	2	0
Infusorial Earth	...	...	...	...	...	1	52	2	20
Totals						76	15,027	0	9

No. 57.

RETURN showing the NUMBER of LICENSES to SEARCH for METALS OR MINERALS OTHER THAN GOLD
issued during the Year 1874.

Names of Metals and Minerals.							Number of Licenses.	Extent of Ground held under such Licenses.
								Acres.
Coal	...	...	...	...	...	...	21	11,363
Antimony	...	...	...	...	...	...	2	100
Slate	...	...	...	...	...	...	1	5
Tin	...	...	...	...	...	...	14	1,824
Bismuth	...	...	...	...	...	...	1	320
Flagging	...	...	...	...	...	...	1	60
Lignite	...	...	...	...	...	...	2	1,280
Silver, Lead, and Copper	...	...	...	...	...	...	2	520
Gypsum	...	...	...	...	...	...	2	560
Ores of Iron	...	...	...	...	...	...	2	520
Opal	...	...	...	...	...	...	1	50
Totals							49	16,602

NOTE.—Fees are charged for Searching Licenses in accordance with the following scale:—

			£	s.	d.
For an area exceeding 320 acres, but not exceeding 640 acres, per annum ..	..	..	10	0	0
" 160 " " 320 " " " " " "	..	..	5	0	0
" 80 " " 160 " " " " " "	..	..	2	10	0
" 64 " " 80 " " " " " "	..	..	1	5	0
And for any area not exceeding 64 acres ..	..	..	1	0	0

(Vide Notice published in the Government Gazette of 2nd December 1864.)

No. 58.

RETURN of the NUMBER of MINERAL LEASES issued in the Year 1874, and the EXTENT of GROUND LEASED.

Names of Metals and Minerals.							Number of Leases.	Area.		
								A.	R.	P.
Antimony	...	...	...	...	...	...	2	75	0	19
Coal	...	...	...	...	...	...	2	1,230	0	0
Silver	...	...	...	...	...	...	1	202	2	31
Silver, Lead, and Copper	...	...	...	...	...	...	2	858	3	36
Infusorial Earth	...	...	...	...	...	...	1	52	2	20
Ironstone	...	...	...	...	...	...	1	320	1	35
Red Ochre Clay	...	...	...	...	...	...	1	15	0	12
Tin, and the Ores of Tin	...	...	...	...	...	...	8	233	3	21
Totals							18	3,038	3	14

METALLIFEROUS MINERALS, COALS, LIGNITE, CLAYS, SLATES, AND MISCELLANEOUS MINERALS.

METALLIFEROUS MINERALS.

SILVER.

According to the returns made to the Department, the following quantities have been raised :—

				Silver Ores.	Silver.
				tons	ozs. dwts.
Previously—up to 31st December 1873 ...	...	...	...	12,288	24,719 8
From 1st January to 31st December 1874 ...	...	...	...	180	760 0
Extracted at the Mint ...	...	...	...	...	11,146 5
Totals ...	...	...	...	12,468	36,625 13

The following statement of Exports has been supplied by the Customs Department :—

Year.				Silver Ores.	Silver.
				tons cwt.	ozs. dwts.
1861 ...	...	...	...	10 6	...
1864 ...	...	...	...	...	4,207 15
1865 ...	...	...	...	...	4,954 0
1867 ...	...	...	...	...	366 2
1868 ...	...	...	...	...	5,604 9
1871 ...	...	...	...	...	236 0
1873 ...	...	...	...	...	Nil
1874 ...	...	...	...	...	Nil
Totals ...	...	...	...	10 6	15,368 6

Silver mining operations in the St. Arnaud district during the year 1874 are thus reported on by Mr. James Rowan, the Warden's Clerk at St. Arnaud :—

"The yields of silver from the undermentioned mines may be tabulated as follows :—

				Quartz Raised.	Silver.	Value.	Value of Gold.
				tons.	ozs.	£ s. d.	£
Wilson's Hill ...	...	...	...	2,073	276	69 0 0	5,604
Rising Star ...	...	...	...	1,454	36	9 0 0	2,362
Chrysolite Hill ...	...	...	...	2,193	68	19 0 0	3,966

NOTE.—The ore was not treated alone for the extraction of silver.

"The London and St. Arnaud Gold and Silver Mines Company Limited have raised 180 tons during the year 1874. The quantity reduced was 180 tons, and the mixed metal extracted therefrom represents the estimated value of £152. The company have been engaged principally in prospecting at Stewart's Hill, at the two and three hundred feet level. No stone has been raised since the beginning of February, but eighteen men have been constantly employed in driving levels and crosscuts."

Chrysolite Hill Company have completed the sinking of their shaft, which has reached the depth of 500 feet. The mine is at present the deepest in St. Arnaud.

The following remarks are taken from the annual returns of lessees' operations on lands occupied for silver mining purposes; one return states :—"Prospecting for silver ore, sinking and driving, but up to the present time little worth crushing or treating has been met with." Another return says :—"During the year 1874 a new shaft has been completed to a depth of 400 feet, and a golden reef cut at that depth. Machinery (20-head battery and engine) is now being erected to work the same."

The Mining Surveyor at St. Arnaud reported, respecting silver mining, for the quarter ended 31st June 1874, as follows :—"At the silver mines the removal of the machinery has been completed on to their new shaft (Sec. H. Walker's), and mining operations have been commenced on the reef at the 300 foot level." For the quarter ending 31st September 1874 he reports :—"At the silver mines they have been engaged during the quarter in driving cross-cuts and levels, at a depth of 300 feet from their new shaft, Stewart's Hill." For the quarter ending 31st December 1874 he states :—"The Silver Mines Company were engaged during the quarter in driving levels and crosscuts, at a depth of 300 feet from the new shaft."

The lessees of a mine in Gippsland report that during the year 56 tons of lead and silver ore have been raised.

The manager of another mine in Gippsland reports that during the year 55 tons of lead and silver ore have been raised.

The lessee of a lease near Maryborough reports that a shaft has been sunk 400 feet, and machinery for pumping and crushing erected, at a cost of £8,000. The lode has not yet contained any silver, but large quantities of arsenical and iron pyrites, to concentrate which a buddle is now in course of erection. The assay of the gold found is £3 18s. 6d. per oz.

During the year 1874 the quantity of silver extracted from gold at the Royal Mint amounted to 11,146·17 ozs. which, at the current rate of 5s. per ounce, gives £2,786 11s. The quantity of silver sold by the Mint during the same year was as follows :—

	...	...	...	...	ozs.
1st quarter ending March ...	...	...	...	...	3,156·03
2nd quarter ending June ...	...	...	...	...	928·59
3rd quarter ending September ...	...	...	...	...	2,885·26
4th quarter ending December ...	...	...	...	...	3,590·40
Total ...	...	...	...	...	10,560·28

Thus leaving in the Mint 585·95 oz. not disposed of.

There were three leases in force at the end of the year for the purpose of mining for silver on an area of 380 acres 1 rood 17 perches; two leases for mining for silver and lead over an area of 605 acres 32 perches; two leases in force for silver, lead, and copper for an area of 858 acres 3 roods and 36 perches.

Two licenses to search for silver, lead, and copper were issued for an area of 520 acres.

One lease was issued during the year for an area of 202 acres 2 roods 31 perches to mine for silver, and two leases to mine for silver, lead, and copper over an area of 858 acres 3 roods 36 perches.

TIN.

The following statement of Exports has been received from the Customs Department :—

TIN ORE.	tons cwt.	TIN.	lbs.
Previously—up to 31st December 1873 ...	4,006 12	Previously—up to 31st December 1873 ...	248,960
From 1st January to 31st December 1874 ...	112 14	From 1st January to 31st December 1874 ...	86,016
Total	4,119 6	Total	334,976

The following information, relative to the quantity of tin ore raised in the Beechworth district, has been supplied by Mr. Robert Pitcairn, Warden, &c., at Beechworth :—

"Tin (black sand) raised :—		tons cwt.
Eldorado, Woolshed, Sheepstation, Black Sand, and Pilot Creeks, &c. ...	...	204 12
Koetong ... ..	...	85 10
Total ... ..	...	290 2

"Tin smelted, 152 tons 6 cwt.; percentage, Eldorado, 73 per cent.; Ovens, 30 to 70 per cent.; Koetong, 65 to 72 per cent. "Smelted tin shipped to England, 49 tons 2 cwt. Price £85 to £112; present price £87.

"Smelted tin sold in colony, 103 tons 4 cwt.

"Black sand shipped to England, 81 tons 12 cwt. Prices: Beechworth, £30 to £40; Koetong, £40 to £46."

The Warden at Eldorado states that the aggregate quantity of tin ore raised within this division is about ten tons per month.

The Mining Registrar for the Dry Creek subdivision of the Beechworth district, in his report for the quarter ended 31st December 1874, states :—"I may, however, mention that a company styled the North-Eastern Gold and Tin Mining Company has started under very favorable auspices. Operations have been going on for the last month, and are being energetically pushed forward. It will probably be five months before the workings are properly opened out, as there is a great deal of dead work to be executed before anything definite can be known, although excellent samples of tin ore have been found in the company's ground ahead."

The Mining Surveyor at Yackandandah reports, "that in the Mitta Mitta division tin ore is being worked for. Three claims situated at the head of the Cudgewa Creek, giving employment to thirteen men, are being worked. Up to the beginning of December last, the "Koetong Tin Mining Company gave employment to from ten to fifteen men, but this company has suspended operations for the present."

A lessee at Grassy Creek (a branch of the Cudgewa) reports having raised about 8 tons 10 cwt. 21 lbs. of tin ore during the year, and states that he had to suspend work for want of water. At Cudgewa a lessee reports having raised 9 tons 4 cwt. 27 lbs. during the year. Another lessee at the same place states that he raised 22 tons 14 cwt.; a third reports that the quantity raised by him during the quarter ending 31st March 1874 was 1 ton 18 cwt.; and a fourth states that he raised 2 tons during the year. The Mining Registrar for the Russell's Creek division reports for the quarter ending 31st March 1874 as follows:—"A large extent of country has been prospected for tin, and in nearly every instance good payable prospects have been found, averaging from 10 dwts. to 2 ozs. to the dish of washdirt. Several leases have already been pegged out and applied for. The locality is about four miles north-east from the old Gippsland Fern-tree Gully road, embracing several branches of the Tarwin River. It is estimated by the prospectors that sufficient fine gold will be obtained to pay all working expenses."

Mr. Cosmo Newbery reports:—"Coarse-grained clean tin sand, found about six miles south of Mount Fatigue, gave, when assayed, 74 per cent. of tin. Fine-grained tin sand, from the same locality, gave 53 per cent. of tin. A sample of stream tin ore, from the Franklin River, about four miles from Muddy Creek, gave, upon assay, 60 per cent. of pure tin. A sample of tin sand, from the same locality, gave 42·1 per cent. of tin. Black sand, from Stockyard Creek, was found to consist of titaniferous iron, with minute perfect crystals of topaz and quartz. A sample from the Upper Murray was a thin vein composed of cassiterite, with quartz, mica (white), and a little pyrites: it gave 45 per cent. of tin. Another sample from the same place was a moderately hard granite, composed of orthoclase, quartz, and white mica. The tin ore was distributed evenly through the mass of rock. It yielded 13 per cent. of tin. A sample of black sand, submitted by Mr. John Woods, M.P., was found to consist of stream tin and iron sands, and gave 38·1 per cent. of tin; while another sample of tin sand, submitted by the same gentleman, gave 63 per cent. of metallic tin."

The prejudice that at first existed against Victorian block tin is fast wearing away, for although a diversity of opinion still exists as to the respective qualities of Victorian and imported tin, the testimony of those trades that are accustomed to work in this metal preponderates in favor of the former. The great increase in the use of the Victorian article, by tinsmiths and others, and especially in the preparation of solder, is the most practical testimony in its favor. The smelting of Victorian tin ore is confined to the Ovens district, the principal smelters being the "Wellington Company," El Dorado; W. G. Hensley, Reed's Creek; Ah Moy, Reed's Creek; and Tien Sing. The wholesale dealers and the trade consumers are all loud in their praises of the block tin prepared by the Chinese smelters. Over 100 tons of Victorian block tin were sold by the wholesale dealers off Melbourne during the year 1874, at prices ranging from 9½d. to 1s. per lb. The largest amount sold by any one firm was 25 tons; the other quantities sold were 20, 18, and 15 tons; the minimum quantity sold being 4 tons. The majority of the tin trade, and particularly those who use the tin for making solder, openly state their preference for the Victorian tin. An idea of the consumption of Victorian block tin in Melbourne alone may be gathered from the statements made by some of the principal tin workers in the city.

One firm states that during the year 1874 they used 22 tons, which, at the average price paid per lb., represents an outlay of £2,420.

A firm disposed of and used during the year 12 tons. This firm states that, in the manufacture of solder, the very best English tin is required to take an equal quantity of lead, say 100 lbs. of lead to 100 lbs. of tin. Numerous trials with Victorian, Queensland, and English tin, give as results that 100 lbs. of Queensland tin will take 112 lbs. of lead; that 100 lbs. of Victorian tin will take from 104 to 105 lbs. of lead; while, as before stated, the very best English tin will only mix well when used in equal quantities with the lead.

Another firm that consumed about 20 tons, at from 9d. to 1s., during the year, states that, while the Victorian tin is better than the English, it is not refined so well. It therefore pays to send home Victorian ingots to be refined; and it is not improbable that the Victorian tin, after undergoing the refining process in England, is then exported under the name of "Lambing Flat," and other favorite brands.

A firm that used about 3 tons during the year for manufacturing solder prefers the English tin, stating that the Victorian tin when melted is too lumpy to amalgamate well with the lead.

A manufacturing tinsmith used about 30 cwt. of Victorian tin in 1874, which, at the price paid by him per lb., represented an outlay of £154.

Another tinsmith used 28 cwt., which, at an average price of 10d. per lb., would represent an expenditure of about £130.

There were twelve leases in force at the end of the year for the purpose of mining for tin, on an area of 961 acres 2 roods.

Eight leases were issued during the year for an area of 233 acres 3 roods 21 perches to mine for tin.

Fourteen licenses to search for tin over an area of 1,824 acres were issued.

COPPER.

According to the returns received, the following quantities of copper ore have been raised :—

Perviously—up to 31st December 1873 ...	...	...	...	...	tons.
From 1st January to 31st December 1874	...	...	...	...	Nil
Total ... ..	...	...	...	...	1,255

The following statement of Exports has been received from the Customs Department:—

	Copper.		Copper Ore.	
	tons	cwt.	tons	cwt.
Previously—up to 31st December 1873	49	12	36	1
From 1st January to 31st December 1874	10	2	Nil	
Totals	59	14	36	1

The lessees of a lease situated at Walhalla state that they are driving a tunnel with a view to intersect the lode at a greater depth than it has hitherto been tested. Should the lode be found to endure in depth, more extensive smelting furnaces and a reducing plant will be erected. No ore has been raised from the mine during the year 1874.

The Mining Registrar for the Stringer's Creek division reports for the quarter ending 31st June 1874 as follows:—"The principal event in mining which has taken place this quarter is the successful floating of the Thomson River Copper Mine. It is now named the Walhalla Copper Mining Company Limited, and has been put into 30,000 shares of £1 each, the whole of which, with the exception of 1,000 held by the company, have been taken up. The company is a very good one, so there is every probability of the lode being properly tested; and according to the opinions of several gentlemen well acquainted with copper there is very little doubt that this mine, with proper management, will be highly remunerative." For the quarter ending 31st December 1874 he reports:—"The Walhalla Copper Mining Company are driving a tunnel to intersect the lode at a depth of 100 feet below the first level from the surface, and expect to do so about the end of next quarter."

Nothing was done during the year 1874. The lessees of the only lease for copper mining state they have not raised any ore. No copper ore from any of the other colonies comes to Melbourne, unless for transhipment to Europe, and consequently no smelting of this metal has taken place. South Australian copper in ingots and plates brings, delivered in Melbourne, £88 10s. per ton; and is quoted in London at from £90 to £91.

Mr. Cosmo Newbery reports that he has received for analysis the following samples:—"Metallic copper, associated with oxide of copper, stated to have been found within three miles of Melbourne. Upon smelting it will give about 90 per cent. of copper. The sample has the general character and appearance of surface samples from many of the Queensland copper lodes. Quartz from Granite Flat, Snowy Creek, containing small traces of copper, as sulphide and carbonate. Sample from the ranges between Koetong and Bright consisted of carbonates of copper and lead. On a preliminary test being made, it gave about 50 per cent. of the combined metals, copper and lead, and an amount of silver equal to about 40 ounces per ton of ore. A sample, stated to be a duplicate of the former one, was also received, but it was not so rich in metallic minerals. Three assays were made, the result being copper 25·36 per cent., lead 9·10 per cent., silver 6 dwts. 12 grs. per ton of ore. The copper and lead were both present as carbonated. Copper ore, in a quartz gangue, from Granite Flat, Snowy Creek, was found to contain copper as sulphide, and also green carbonate of copper. Upon assay it gave 5·80 per cent. of copper. A sample of copper and iron pyrites, from Charlton, near Beaufort, gave, upon assay, 21·30 per cent. of copper."

One lease was in force at the end of the year to mine for copper over an area of 625 acres 0 roods 12 perches; two leases were in force to mine for copper, silver, and lead, over an area of 858 acres 3 roods 36 perches.

Two leases were issued during the year to mine for copper, silver, and lead, over an area of 858 acres 3 roods 36 perches; and two licenses to search for copper, silver, and lead, over an area of 520 acres, were issued.

ANTIMONY.

According to returns received, the following quantities have been raised:—

ANTIMONY ORE.						tons	cwt.	qrs.	lbs.
Previously—up to 31st December 1873 ... ..	...	...	...	...	...	10,609	17	0	0
From 1st January to 31st December 1874 ... ..	...	...	...	...	...	588	7	3	9
Total ... ..	...	...	...	...	...	11,198	4	3	9

The following statement of Exports has been received from the Customs Department:—

	Antimony Ore.		Antimony Regulus.		Antimony.	
	tons	cwt.	tons	cwt.	tons	cwt.
Previously—up to 31st December 1873	7,837	2	271	5	430	1
From 1st January to 31st December 1874	224	7	231	0	Nil	
Totals	8,061	9	502	5	430	1

The following remarks are taken from the annual returns of lessees' operations on lands occupied for antimony mining purposes. One lessee, who has raised 75 tons of ore, reports—"Were engaged for upwards of four months in sinking a main shaft, 10 feet x 3 feet 3 inches; it is now slabbled and centred to a depth of 187 feet; had to go in about 123 feet before striking reef, which now looks very promising." Another states:—"Erecting 30 horse-power engine and 10-inch lift. Sinking shaft 75 feet from 1st June to 14th November; present depth, 200 feet." The amount of ore raised was over 59 tons. A third lessee, who has raised about 19 tons, states:—"Have not smelted any of this ore—very poor, indeed." A fourth lessee reports having raised 435 tons of ore, having smelted 123 tons, and having obtained 43 tons of regulus.

Mr. Alfred Armstrong, the Mining Surveyor and Registrar for the St. Andrew's division of the Castlemaine district, in his report for the quarter ending 31st March 1874, states:—"The antimony mine at Ringwood has yielded during the quarter 19 tons of sulphide of antimony and 30 tons of oxide, both of excellent quality. The encouraging appearance of this mine will lead to more extensive operations."

During the year about 153 tons 10 cwt. of antimony were raised in Victoria, the value of the ore ranging from £7 to £12 per ton. Ore containing 60 per cent. of antimony brought, in London, from £12 to £12 15s. per ton, while the regulus has maintained a price as high as £49 per ton. With one exception there is but little smelting carried on in Melbourne. One firm in Melbourne, during 1874, smelted 17 tons 6 cwt. 1 qr. 13 lbs., consisting of mixed lots, the price averaging about £7 10s. per ton. The yield was 6 tons 10 cwt. 3 qrs. 6 lbs.

Another firm treated about 38 tons of ore, valued at from £7 10s. to £8 per ton, and obtained a yield of 22 tons, the market value of which was £42 per ton; while a third had 58 tons of ore treated, the value of which varied from £8 to £11 per ton, and obtained a return of 20 tons of regulus.

With respect to the following samples of antimony ores received, Mr. Cosmo Newbery reports:—"Sulphide of antimony from Ringwood yielded 55 per cent. of antimony, and another sample 33 per cent.; sulphide of antimony from Costerfield gave 45 per cent., and a sample from Wluoo 65 per cent.; sulphide of antimony from Sandhurst gave 63 per cent. of antimony; oxide of antimony from Costerfield gave 36 per cent. of antimony. A sample of sulphide of antimony associated with oxide, discovered 35 feet beneath the surface, at Ringwood, gave, when assayed, 63·46 per cent. of antimony. Sulphide of antimony with oxide of antimony and quartz, submitted by Mr. Bruhn, of Sandhurst, gave an average percentage of 31 per cent. of antimony, and an amount of gold equal to 2 ozs. 8 dwts. 23 grs. per ton."

There were twenty-one leases in force at the end of the year to mine for antimony over an aggregate area of 522 acres 2 roods 27 perches.

Two leases were issued during the year to mine for antimony over an area of 75 acres 0 roods 19 perches.

Two licenses to search for antimony, over an area of 100 acres, were issued during the year.

LEAD.

According to returns received, it appears that the following quantities of lead ore have been raised:—

Previously—up to 31st December 1873	...	...	...	...	...	tons.
From 1st January to 31st December 1874	...	...	...	...	...	407
Total	...	...	...	...	...	518

The following statement of Exports has been received from the Customs Department:—

	Lead Ore.		Lead.	
	tons	cwt.	tons	cwt.
Previously—up to 31st December 1873	66	18	0	1
From 1st January to 31st December 1874	Nil		Nil	
Total	66	18	0	1

The lessees of a mine in North Gippsland report that they have raised 55 tons of lead and silver; that 20 tons have been smelted, and that 4 tons 15 cwt. 2 qrs. of regulus were obtained.

The manager of another mine in Gippsland states the quantity of galena raised during the year to be 56 tons. The company smelted 3 tons 10 cwt., obtaining therefrom 17 cwt. 0 qrs. 3 lbs of regulus. In another mine operations have been confined to prospecting, with a view of getting on the lode.

Mr. John Grimes Peers, Mining Surveyor and Registrar for the Mitchell River subdivision of the Gippsland mining district, makes the following remarks respecting the galena mines at Buchan in his report for the quarter ending 31st March 1874, the information having been supplied to him by the mining manager of one of the principal companies:—

“Murrindal Silver and Lead Mining Company.—The furnaces lately erected for smelting have not been found to answer, which is to be attributed to improper construction and the want of skilled smelters. Two experienced smelters, however, have been sent for from England, and are expected to arrive per next mail, and until their arrival four men only will be at work.

“Spring Creek Lease.—Work has not yet been commenced.

“Neal’s Creek Lease.—No work has been done here for a time.

“The Buchan Lead and Silver Mining Company.—During the past quarter little work has been done in this mine. The rise in the main level has been driven about 8 feet, with greatly improved results, but, owing to the want of ventilation, work has had to be suspended here. The greatest improvement is noticeable in the ore, it being for the last two feet better than any seen for the previous 40 feet, and giving undoubted proof that the lode will increase in quality and quantity as it deepens.

“The Potosi Company.—This company is not working.”

For the quarter ending 30th June 1874 Mr. Peers reports:—

“Buchan Lead and Silver Mining Company.—There have been but two men employed on this company’s mine during the quarter. I am informed by the manager that the ore is improving.

“Murrindal Company.—Four men are engaged on this company’s mine, preparing ore for the furnaces.

“No men are employed on any of the other mines in this locality.”

Early in the year a trial smelting of 2 tons of Murrindal lead was made in Melbourne; a return of 60 per cent. of lead was obtained, the metal being valued at £22 10s. per ton. The cost of treatment, together with the cost of transport from the mine to Bairnsdale, and the carriage thence to Melbourne, left no margin for profits. One item of expense is caused by the difficulty that exists in separating the lead from the sulphur and antimony, which form component parts of the ore. The company at Murrindal have erected a Spanish reverberatory furnace, and also a Flintshire furnace, and have sent to England for a manager well versed in the treatment of lead ore. As there are apparently large quantities of lead ore in the claim, the company hope, as soon as they are in a position to begin smelting, to place on the market an article that will find favor with the manufacturers. The price of Australian lead, as judged by that placed upon the market by the Champion Bay Company, Western Australia, rules high. The ore is quoted at from £15 to £16 per ton, and the pig, before it is manipulated, is valued at £23.

There were two leases in force at the end of the year to mine for lead and silver over an area of 605 acres 0 roods 32 perches, and two leases to mine for lead, silver, and copper over an area of 858 acres 3 roods 36 perches. The last mentioned two leases were issued during the year.

Two licenses to search for lead, silver, and copper were issued for an area of 520 acres.

BISMUTH.

A sample of nearly pure metallic bismuth, from Snowy Creek, was received. Mr. Cosmo Newbery reports that the outer portions of the sample contain carbonate and oxide of bismuth with ferruginous clay. It contained no gold or silver.

One license was issued to search for bismuth on an area of 320 acres.

IRON.

According to returns received, it appears that the following quantities of iron ore have been raised:—

Previously—up to 31st December 1873	...	...	...	...	...	tons.	cwt.
From 1st January to 31st December 1874	...	...	...	...	...	52	0
Total	...	...	...	...	...	130	10

The following statement of Exports has been received from the Customs Department:—

	Iron Ore.	
	tons	cwt.
Previously—up to 31st December 1873	10	8
From 1st January to 31st December 1874	Nil	
Total	10	8

Mr. William H. Gaunt, warden, &c., for the Ballarat district, states that the Lal-lal Iron Company Limited have just completed the erection of a smelting furnace for iron ore, and are about to erect suitable machinery for driving the blasts; men are engaged in burning charcoal for supply of fuel, and mining work has been carried on, proving that the ore-beds extend over a considerable area.

The lessees of an iron mine report that some hundred tons of iron ore have been raised in making excavations to prove the lode. A furnace has been erected, and the company are engaged in fixing machinery. Beds are being made for the iron, and buildings are being put up.

The only experiments made during the year were with the iron ore found at Limestone Gully, between Newstead and Sandy Creek. The ore crops out of the ground, and presents much the same appearance as that observable in the Tasmanian iron country. About half a ton of ore, and the lime found in juxtaposition to it, were smelted by Messrs. Drysdale and Fraser, of King street, Melbourne, and yielded 55 per cent. of iron. The smelters report that the lime is superior to that found at the Heads, and equal to the Geelong lime. The largest of two iron lodes is 150 feet wide, visible to the eye from the bed of the Loddon for a quarter of a mile. It is estimated by those who have visited the spot, that over 50,000 tons could be readily obtained for smelting. The iron is the iron of commerce, or grey iron, which, being soft and ductile, is generally used for castings, columns, bronze and wheelwright's work. It is said to be different from the hematite ore found at Ilfracombe, Tasmania; Para-para, New Zealand; and Lal-lal, near Ballarat; which is better suited for the manufacture of stamp-heads, the jaws of stone-breaking machines, &c., and for puddling into wrought iron, which, however, necessitates expensive machinery.

The lessee of a lease near Bendigo reports that 30 tons of red ochreous clay have been raised; also that no work has been done since 31st March 1874, as a quantity of the clay has been sent to England, in order to ascertain the value of the prepared red ochre of commerce, and the value of the raw material in the English market. Information respecting the nature and cost of the necessary and suitable machinery for manufacturing the clay on the ground held under lease, and the ruling prices in the English, Continental, and Indian markets, with statistics relative to home consumption, have been sought for. Answers to these enquiries are expected shortly.

With respect to the samples of iron ore submitted to him for analysis, Mr. Cosmo Newbery reports:—"A sample of impure brown iron ore from Daylesford was received, which gave 36.89 per cent. of metallic iron, and 37.70 per cent. of silica, the greater part of the silica being in the form of sand. The brown iron stone from Traralgon Creek consisted of peroxide of iron, silica, alumina, lime, and magnesia, coated over and permeated with phosphate of iron (earthy vivianite). A sample from the head of Lake Tyers, Gippsland, was found to consist of micaceous iron, hematite, and brown iron ore, with quartz and iron pyrites. An average portion gave metallic iron 26.32 per cent., silica 61.80 per cent. Mixed hematite and brown iron ore from Wilson's Promontory gave, upon assay, 60 per cent. of iron. A sample of micaceous iron ore, associated with quartz, from the Grampians, was received. It found free from quartz, and in large quantities, it would be a valuable iron ore, containing 72 per cent. of that metal. Nearly pure chrome iron, in the form of sand, has been received from Stockyard Creek, and in a massive form from North Gippsland. From the neighborhood of Mansfield a sample of magnetic oxide with brown iron ore and clay was received, which, upon analysis, gave metallic iron 42.70 per cent., silica and clay 37.90 per cent. Samples of titaniferous iron sand have been received from all parts of the colony; they contained garnets, zircons, sapphires, topazes, and in a few cases cassiterite. Feruginous sandstone, from the coast near Frankston, was found to consist of hydrated oxide of iron 67.10 per cent., silica (sand) 32.90 per cent."

There was one lease in force at the end of the year to mine for iron over an area of 42 acres 2 roods 22 perches. One lease to mine for ironstone over an area of 320 acres 1 rood 35 perches. (This lease was issued during the year.) Two licenses were issued during the year to search for iron over an area of 520 acres.

There were two leases in force at the end of the year to mine for red ochre clay over an area of 17 acres 0 roods 26 perches. One lease to mine for red ochre clay over an area of 15 acres 0 roods 12 perches has been issued during the year.

COAL AND LIGNITES.

COAL.

According to returns received, it appears that the following quantities have been raised:—

	tons	cwt.
Previously—up to 31st December 1873 ...	2,547	8
From 1st January to 31st December 1874 ...	2,909	0
Total ...	5,456	8

The lessees of the leases held by the Western Port Coal Mining Company Limited state in the returns of operations during the year that they have raised 2,879 tons of coal. Adit and stalls have been driven to the extent of 775 feet, and a third shaft has been sunk about 90 feet. The average thickness of the seam has been about 20 inches, but a fault has just been crossed, throwing the seam down about 50 feet. The coal is now about 31 inches thick, and much harder and heavier, and will be cut with very much less slack. Preparations are now being made, by increasing the capital, for laying down iron rails on the tramway, and providing a locomotive engine, as horse labor is too slow for the quantity of coal the mine is capable of placing on the market.

The lessees of a lease near Rosedale report that the principal operations carried on have been not so much raising coal as preparing for future work. Five seams of coal have been opened, varying from 9 inches to 4 feet in thickness. About 30 tons of coal have been raised.

The holder of a lease near Griffith's Point states that a shaft has been sunk 250 feet in depth during the two quarters ending March and June 1874. The coal has not yet been reached, but arrangements have been made for sinking further.

In the returns of operations during the year, the chairman of the directors of the Kilcunda Coal Association reports:—"During this period the Kilcunda Coal Association has sunk a shaft 80 feet by 4 feet 3 inches, on the ground, in order to explore for coal. The shaft is down 250 feet, and has penetrated through clay, blue sandstone, shale, and small ridges of coal $\frac{1}{2}$ inch to 3 inches only. Further capital is being raised by the association in order to sink deeper for payable seams."

Other lessees of leases state that they are boring down 320 feet; that several seams have been passed through; and that samples of coal and fire clay taken out of their ground are to be seen at the office of the secretary of the Melbourne and Hobson's Bay United Railway Company.

The Mining Registrar for the Russell's Creek division of the Gippsland mining district reports, for the quarter ending 31st March 1874, that several parties were prospecting for coal, and that very good indications had been found on the La Trobe River.

It was reported, about the commencement of December, that what was described as a valuable seam of coal had been discovered at Lang-lang, in South Gippsland, by Mr. Edmund O'Mahoney. The coal deposit is about seven miles from the proposed Gippsland railway line, and is sixty-five miles from Melbourne. The seam at Lang-lang is stated to be about two feet thick at a very short distance from the outcrop.

About the end of December it was stated that a landslip in the Wannon Valley exposed the lay of the strata. Some ten feet from the surface there cropped out what appeared to be a seam of coal four feet in thickness. The mineral was found to burn with a smouldering heat like peat.

With respect to the coal discoveries on the Gippsland road, Mr. Cosmo Newbery reports that their character is for the most part shaley. The two best samples gave—

No.	Water.	Volatile Matter.	Fixed Carbon.	Ash.
No. 1 ...	1.60	20.30	66.58	11.52 = 100
No. 2 ...	3.50	28.46	59.67	8.37 = 100

There were eighteen leases in force at the end of the year to mine for coal over an area of 9,412 acres 0 roods 19 perches.

Two leases to mine for coal over an area of 1,280 acres were issued during the year.

Twenty-one licenses to search for coal over an area of 11,363 acres were issued during the year.

LIGNITE.

According to returns received, it appears that the following quantities have been raised :—

Previously—up to 31st December 1873	...	...	...	...	...	tons. 2,755
From 1st January to 31st December 1874	...	...	...	...	...	750
Total	...	...	...	...	...	3,500

Mr. Warden Gaunt reports that about 750 tons have been raised during the year 1874 by the Victorian Brown Coal Company Limited, the price charged at the pit's mouth being five shillings per ton. The average number of men employed is sixteen.

Mr. Cosmo Newbery reports that the lignites received from Mac's Creek, Moc, and the Upper Yarra closely resemble the lignite of Crossover Creek in their appearance, but the analyses show that they contain less volatile matter and more fixed carbon.

The lignite from the "Haunted Hill," Trig Station, La Trobe River, in texture and appearance closely resembles the Lal-lal lignite. In 100 parts it contains—

Water	...	...	...	...	18.90
Volatile matter	...	...	...	...	35.25
Fixed carbon	...	...	...	...	41.75
Ash	...	...	...	...	4.10
					100.00

There was one lease in force at the end of the year to raise lignite over an area of 475 acres 2 roods 10 perches, and two licenses were issued to search for lignite over an area of 1,280 acres.

CLAYS.

According to returns received, the following quantities of kaolin have been raised :—

Previously—up to 31st December 1873	...	...	...	...	tons 1,832	cwt. 14
From 1st January to 31st December 1874	...	...	...	...	Nil	
Total	...	...	...	...	1,832	14

The following statement of Exports has been received from the Customs Department :—

Previously—up to 31st December 1873	...	...	...	...	tons 25	cwt. 0
From 1st January to 31st December 1874	...	...	...	...	Nil	
Total	...	...	...	...	25	0

A sample of clay from Woragcc, Beechworth, contains silica, sesquioxide of iron, alumina, lime, and magnesia. It fuses at a high temperature, and is suitable for ordinary brick and tile making purposes.

The yellow clay from the White Hills, Sandhurst, consists of hydrated silicate of alumina, colored by oxide of iron.

Of a sample of black shale from Ballarat Mr. Cosmo Newbery reports that it somewhat resembles plumbago in appearance. Upon being heated in an ordinary flame the carbon in the shale burns readily, leaving a voluminous white ash, which fuses at a high temperature. The softer parts of the shale might be used for the manufacture of crayons or perhaps soft pencils.

One lease to mine for kaolin over an area of 5 acres 2 roods 28 perches was in force at the end of the year.

FLAGS AND SLATES.

FLAGGING.

According to returns received, it appears that the following quantities have been raised :—

Previously—up to 31st December 1873	...	...	tons 7,617	cwt. 0	qrs. 0	square yards. 80,160
From 1st January to 31st December 1874	...	...	1,961	2	0	Nil
Totals	...	...	9,578	2	0	80,160

SLATES.

The returns received show that there have been raised :—

Previously—up to 31st December 1873	...	...	slates. 11,000	tons. 160
From 1st January to 31st December 1874	...	...	Nil	85
Totals	...	...	11,000	245

Mr. Warden Heron, of Castlemaine, reports that flags, subsequently dressed for billiard tables, monumental purposes, hearth stones, flagging, coreing, continue to be raised.

The annual return of one lessee's operations on lands near Castlemaine, during the year 1874, shows 1,519 tons of flagging and coreing have been raised.

The return of another lessee gives the amount of flagging and coreing raised as 442 tons. He states that all the flagging is sent away from the quarry unsquared. The value of flagging is about £2 10s. per ton in truck at Castlemaine station, coreing being about 14s. There are six men employed.

A holder of a lease of ground near Stawell occupied for the purpose of quarrying for slate states that, during the year 1874, 85 tons have been raised.

The lessees of various leases near Castlemaine report that the operations with respect to slates and freestone have been merely progressive.

A quarry of sandstone, situated on private property, near the White Horse road, Nunawading, has been opened up, and during the year some 20 tons of the stone have been used. It is a brown sandstone, dresses well, and takes a good face. It has been employed for stamping-tables at the General Post Office, and is worth from £2 to £2 10s. per ton.

There was one lease in force at the end of the year to raise flagging over an area of 9 acres 2 roods 3 perches; three leases in force to raise slate over an area of 362 acres 0 roods 13 perches; three leases in force to raise slate and flagging over an area of 42 acres 0 roods 32 perches; and three leases in force to raise slate and freestone over an area of 333 acres 0 roods 37 perches.

One license to search for slate over an area of 5 acres, and one license to search for flagging over an area of 60 acres, were issued during the year.

MISCELLANEOUS MINERALS.

MALDONITE.

Mr. Warden Heron reports :—"A mineral, to which the name of maldonite has been given, has been found distributed throughout the richly auriferous quartz lode of the Eaglehawk line of reef, about one mile south of the place (Nuggety Reef) where it was first observed, and there are indications of new combinations of this bismuth and gold series.

CALCITE AND DOLOMITE.

Mr. Warden Heron gives the following information, for much of which he acknowledges his indebtedness to Mr. John Hornsby, the chairman of the committee of the Maldon Mining Museum, and who takes a deep interest in the mineralogy of Victoria :—"The calcite and dolomite reported upon last year are found associated with vivianite, tremolite (crystalline, massive and glassy), pyrophyllite, apatite, and sheelite, the latter in considerable quantities."

Specimens of these minerals have been forwarded to the Maldon Athenæum and Mining Museum. There are three other minerals in the series, which have not been identified.

LIMESTONE.

During the year 1874 about 8 to 10 tons of limestone, found near the Moorabool River, have been used. It is valued at from 35s. to 40s. per ton, and is admirably suited for the manufacture of filters. Several hundred tons of the Waurn Ponds limestone were used for building purposes. It is found to resist climatic effects, and to harden when exposed to the air. Its price is from 35s. to 40s. per ton.

GYPSUM.

Gypsum and selenite occur in many parts of the colony.

Two licenses were issued to search for gypsum over an area of 560 acres.

INFUSORIAL EARTH.

The Warden's Clerk at Talbot reports that in the Amherst division of the Maryborough district attention has been turned to infusorial earth. The claimholder, although having completed the preliminary prospecting, has not yet commenced active operations.

With respect to the infusorial earth from Sailor's Creek Mr. Cosmo Newbery reports that it contained organic and earthy matter. An analysis gave—

Water	...	...	...	...	6.90 per cent.
Organic matter	...	...	...	...	14.80 "
Indissoluble silica	...	...	...	...	66.80 "
Soluble silica	...	...	...	...	3.30 "
Iron oxides, alumina, magnesia, and alkalis	...	...	...	...	undetermined.

There was one lease in force at the end of the year to raise infusorial earth over an area of 52 acres 2 roods 20 perches.

One lease to mine for infusorial earth over an area of 52 acres 2 roods 20 perches was issued during the year.

DIAMONDS.

The number reported to have been discovered is as follows :—

Previously—up to 31st December 1873	...	...	...	...	...	100
From 1st January to 31st December 1874	...	...	...	...	...	4
Total	...	...	...	...	...	104

Mr. Alex. Alderdice, Warden's Clerk at Beechworth, states that during the year four diamonds are reported to have been found in the vicinity of Beechworth, but that they were all of very small size and value.

SAPPHIRES, ZIRCONS, GARNETS, TOPAZ.

Mr. Warden Pitcairn reports that at Eldorado precious stones, such as sapphires, garnet, amethyst, topaz, agate, rock crystals, are found, and occasionally diamonds.

Mr. Alderdice states :—"Of sapphires, zircons, garnets, &c., none have been found of any value, although the miners at the Woolshed, Pilot Creek, Eldorado, &c., obtain many small ones in washing down."

The following list gives the number of Victorian gem stones cut by Messrs. Spink and Son, Melbourne, during the year :—

Sapphires, from Beechworth, Gippsland, &c.	...	...	...	...	12
Rubies, from Gippsland	...	...	...	...	12
Topazes, from Beechworth, Gippsland, &c.	...	...	...	...	100
Zircons	...	...	...	...	40
Malachite, from Gippsland	...	...	...	...	20
Garnets	...	...	...	...	6
Agates	...	...	...	...	30
Crystalized quartz	...	...	...	...	200

OPAL.

One license to search for opal was issued during the year for an area of 50 acres.

R. BROUGH SMYTH,
Secretary for Mines.

Office of Mines,
Melbourne, 15th February 1875.

APPENDICES.

APPENDIX A.

METALS (OTHER THAN GOLD), MINERALS, AND ORES IMPORTED INTO VICTORIA DURING THE YEAR 1874.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.	Quantity.	Value.		Article.	Quantity.	Value.	
		£	s.			£	s.
Antimony Ore ...	172 tons 4 cwt.	1,602	0	Metal, Yellow ...	178 tons 8 cwt.	16,241	0
Regulus ...	Nil	Nil		Quartz ...	19 " 6 "	292	0
Arsenic ...	Nil	Nil		Quicksilver ...	365 bottles	7,923	0
Asphalt ...	50 tons 0 cwt.	150	0	Silver ...	Nil	Nil	
Coal ...	204,317 " 0 "	244,613	12	Ore ...	Nil	Nil	
Copper ...	50 " 1 "	4,476	0	Slates ...	2,524,779 No.	23,173	0
Ore ...	8 " 17 "	162	0	Slate Slabs ...	Nil	Nil	
Iron, Ore ...	1 " 7 "	14	0	Spelter ...	1 ton 7 cwt.	60	0
Pig ...	6,322 " 5 "	40,303	0	Sulphur ...	410 " 16 "	3,825	0
Kerosene Shale ...	2,795 " 0 "	8,289	0	Tin (including ingots)	36 " 5 "	3,445	0
Lead ...	731 " 16 "	15,877	0	Ore ...	5 " 14 "	132	0
Ore ...	187 " 0 "	1,873	0	Zinc ...	272 " 15 "	9,769	0
Pig ...	Nil	Nil					
Lime ...	19 tons 3 cwt.	93	0	Total ...		£382,312	12

APPENDIX B.

METALS (OTHER THAN GOLD), MINERALS, AND ORES EXPORTED FROM VICTORIA DURING THE YEAR 1874.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

Article.	Quantity.	Value.		Article.	Quantity.	Value.	
		£	s.			£	s.
Antimony ...	Nil	Nil		Lime ...	5,238 bushels	791	
Ore ...	224 tons 7 cwt.	2,136		Metal, Yellow ...	83 tons 14 cwt.	6,244	
Regulus ...	231 " 0 "	12,115		Quartz ...	Nil	Nil	
Arsenic ...	0 " 12 "	19		Quicksilver ...	9 bottles	230	
Coal ...	70 " 0 "	107		Spelter ...	241 tons	3,459	
Coke and Fuel ...	12 " 11 "	25		Silver ...	3,428 ozs. 4 dwts.	915	
Copper ...	78 " 16½ "	7,809		Slates ...	46,800 No.	610	
Ore ...	Nil	Nil		Slate Slabs ...	Nil	Nil	
Iron, Pig ...	91 tons 12 cwt.	667		Sulphur ...	23 tons 14 cwt.	306	
Ore ...	205 " 0 "	245		Tin ...	107 " 5 "	9,896	
Kaolin ...	Nil	Nil		Ore, Black Sand ...	142 " 14 "	8,433	
Kerosene Shale ...	Nil	Nil		Zinc ...	13 " 6 "	598	
Lead ...	19 tons 17 cwt.	587					
Ore ...	8 " 0 "	120		Total ...		£55,312	

NOTE.—The figures in these tables are extracted from the returns published by the Honorable the Commissioner of Trade and Customs. The statements include only raw materials. Thus pig iron is included, but not bars, rods, plates, or castings; lead and lead ore, but not piping or sheet lead; and so in like manner the others. The returns published by the Customs Department necessarily include all. The quantities exported include metals, &c., not the produce of Victoria.

APPENDIX C.

RETURN SHOWING THE QUANTITY AND VALUE OF KEROSENE OIL IMPORTED INTO AND EXPORTED FROM THIS COLONY DURING THE YEAR 1874.

(From Returns furnished by the Honorable the Commissioner of Trade and Customs.)

IMPORTED.		EXPORTED.	
Quantity.	Value.	Quantity.	Value.
	£ s.		£
123,173 gallons, 193,957 cases, 300 brls. ...	148,967 2	384,306 gallons ...	31,862





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